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CENTRAL PATENTS INDEX

CLASSIFIED ALERTING BULLETIN

Section D:

FOOD
DETERGENTS

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ABSTRACTS

INDEXES

II - PATENTEE

V - BASIC NUMBER

VII - PATENT NUMBER

COUNTRY	PUB DATE(S)	NUMBER RANGE
BELGIUM		
-Delayed	29 DEC 80 - 4 JAN 81	883,990 - 884,083
-Non Delayed	31 DEC 80	885,013 - 885,114
BRAZIL	30 DEC 80	7,803,598 - 8,006,689
CANADA	9 DEC 80	1,090,951 - 1,091,400
SWITZERLAND	15 DEC 80 + 31 DEC 80	617,559 - 617,822 620,563 - 621,026
DENMARK	22 DEC 80	7,901,999 - 8,003,585
W.GERMANY		
-DAS	15 JAN 81	1,593,421 - 3,020,563
-OLS	15 JAN 81	2,605,799 - 3,026,653
EUROPE		
-Unexamined	7 JAN 81	20,764 - 21,448
-Granted	7 JAN 81	00,001 - 10,020
FRANCE*	24 OCT 80 (BOPI 28 NOV 80)	2,452,232 - 2,452,856
UNITED KINGDOM	21 JAN 81	1,582,941 - 1,583,320 2,051,531 - 2,052,230
JAPAN		
-Unexamined	—	47,010,343 - 55,111,774
	15 NOV - 20 NOV 80	55,146,601 - 55,149,600
-Examined	19 DEC - 26 DEC 80	80,050,601 - 80,051,880
NETHERLANDS	22 DEC - 29 DEC 80	7,904,723 - 8,003,634
NORWAY	22 DEC 80	7,901,679 - 8,003,310
ROMANIA	FEBRUARY 80	58,491 - 72,778
SWEDEN	22 DEC 80	7,904,320 - 8,007,913
SOVIET UNION	—	297,305 - 736,024
UNITED STATES		
-Reissues	6 JAN 81	Re30,469 - Re30,474
-Defensives	6 JAN 81	T100,201 - T100,204
-Patents	6 JAN 81	4,242,757 - 4,244,056
PCT	8 JAN 81	8,100,001 - 8,100,034

*Printed patents actually published mid November - late November, 1980

Arrangement of Abstracts

See Appendix I for definition of 'Major' and 'Minor' Countries.

'MAJOR' COUNTRIES – An alerting abtract of every basic and examined equivalent document is provided except for equivalents from Canada, East Germany, Sweden and Switzerland. The abstracts are arranged in CPI class order and within any one of the 135 classes are in country and patent number order.

'MINOR' COUNTRIES – Basic headings are included in sequence with the entries from the 'Major' countries.

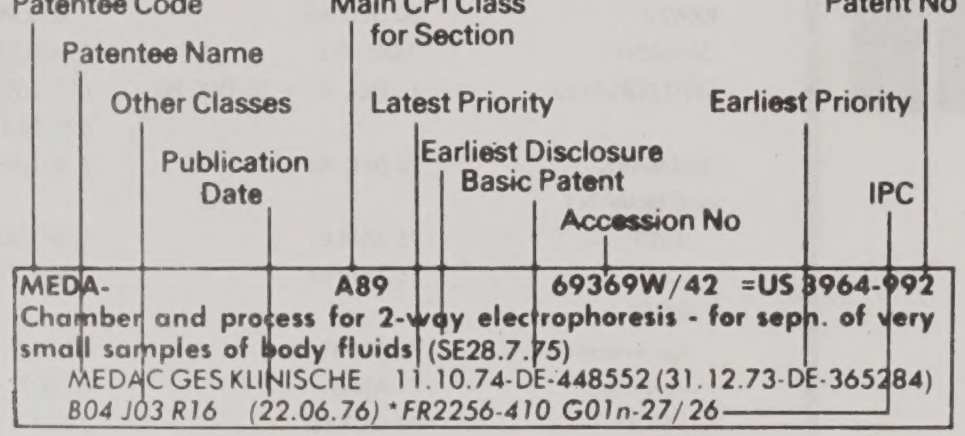
CPI Section Headings

See inside cover for further details.

A	Polymer Chemistry	F	Textiles, Paper, Cellulose
AE	Polymer & General Chemistry	G	Printing, Coating, Photographic Chemistry
A+	Polymer Applns.	H	Petroleum
B	Pharmaceuticals	J	Chemical Engineering
C	Agricultural Chemistry	K	Nucleonics, Explosives, Protection
D	Food, Disinfectants, Detergents	L	Refractories, Ceramics
E	General Chemistry	M	Metallurgy
E+	General Chemistry Applns.		

Typical Abstract Heading

See CPI/WPI Instruction Manual No. 1A for explanation of the various flagged descriptors.



Copies of Specifications may be ordered from our PATENTS SUPPLY DIVISION.

D1: FOOD; FERMENTATION

D11 : BAKING

- ★ D11 03767 D/04 ★CA 1091-177
ying baking trays to or from storage stack - by chain conveyor
rojecting lugs carrying pivot
LTEN & PULVER INC 05.10.77-US-839456
(09.12.80) B65g-59/02
8 as 312605 (53pp295)
g trays are transferred from a stack by a chain conveyor has an electromagnet suspended from a pair of pivots. The are formed by lugs which project upwards from a pair of yor chains which pass round sprockets at the unstacking . The sprockets are carried by a carriage which is lowered to ain the unloading station adjacent the top of the stack as it is ded. The length of the lugs is equal to the radius of the kets and this arrangement temporarily halts the magnets adjacent the top of the stack.
appts. can load or unload baking trays from a stack. During ding the elecromagnet is temporarily stopped. The transfer n moves up and down a stationary stack of trays and the speed eration is faster than a device with a movable stack.

I- ★ D11 03861 D/04 ★DE 2926-753
d edible strands cutting machine - with circulating cutter blade dipping into cleansing bath
AMISCH KLEINEWEFER 03.07.79-DE-926753
5.01.81) A21c-11/10 B29c-17/14
.79 as 926753 (23pp39)
achine to cut off short bars or cubes of strands of cake or other e material with a viscous filling prior to their coating receives slit strands from an endless conveyor which moves them mittently to a cutting device.
e latter consists of endless chains which carry long cutter es and are guided at right angles to the strands at the cutting on. After the cut the chains with the cutter blades are taken gh a cleansing bath.
is machine reduces the amount of rejected products to a minim as a high functional reliability.

F/ ★ D11 03921 D/04 ★DE 2928-534
ed honey cake spreading machine - for dough on wafers in ified recesses of revolving drum
OLFEL P 14.07.79-DE-928534 (00.00.78-DE-804033)
5.01.81) A21c-09/04
.79 as 928534 Add to 2804033 (9pp39)
achine to apply dough to prebaked wafers in the mfr. of spiced ycake was described in the Parent Patent No. 2804033, rding to which the dough nozzle opening has a shape to suit the rical shell segment shape of each cake recess in the revolving n. The prodn. of cakes of any contours is simplified by giving recess a shape equal to the mirror image of the finished cake.
is requires no reciprocating cutter blades which need cleaning move adhering dough.

T/ D11 38870 S/23 = DS 1959-786
her/processer for stale bread, acid, pulp - yeast etc
ETTER R (VET) 28.11.69-DE-959786
*5.01.81) *DE1959-786 + A21c-01*
.69 as 959786 (4pp39)
achine for the processing of stale bread, leaven, yeast and water bakeries consists of a cylindrical tank of several metres height ch has at the bottom an impeller, driven by a motor, below it. A ndrical ring surrounding the impeller has inner serrated edges ch break up the stale bread in conjunction with the impeller.
e ring can be extended telescopically upward by other tubes to the level of the contents. A conical deflector at the bottom ects the crushed material and causes it to rise in the outer lus.
is machine can process even large lumps of stale bread sfactorily.(DS)

P D11 32835 C/19 = EP --21-313
age-resistant ready-to-use paste for pasta - contains fresh basil, ic. hard cheese, fat and controlled salt to water ratio
PC INTERNATIONAL INC 16.06.79-DE-924358
*07.01.81) *DS2924-358 A23l-01/22 + A23c-19/09*
6.80 as 103357 (26pp513) (G) FR2091686 DE1517136 2.Jnl.Ref E(CH T LI)

Ready-to-use, storage stable herb paste, esp. for flavouring pasta dishes comprises 8-80 wt.% basil, 0.1-8 wt.% garlic, up to 80wt.% hard cheese, edible fats and 12-80 wt.% water (including that in the other components).

The compsn. may also contain herbs and spices, herb substitutes, preservatives and/or extenders, and has the following characteristics: (a) fresh basil is used which has neither been dried nor heated to above 70 deg. C; (b) fresh garlic is used; (c) no preservatives in the sense of the additives regulations of 20.12.77 are present; (d) salt and opt. monosodium glutamate (MSG) are present such that the ratio of the sum of the amts. of basil, garlic and any other fresh herbs in wt.% to the sum of the amt. of salt and MSG in wt.% is 3:1 to 5:1, and the wt. ratio MSG to salt is at most 1:3; (e) the hard cheese content is at least 20 wt.%; (f) the water content of the hard cheese is 25-50 wt.% and the wt. ratio of its salt content to the water content is less than 1:5. and (g) the wt. ratio of the total water content to the total content of salt + MSG is greater than 4:1..

The prod. is storage stable and can be used directly in the prepn. of dishes as a substitute for freshly-made 'Presto' (an Italian prod. made with fresh basil).

LEFE/ D11 90529 Y/51 = GB 1583-182
Bread baking process - accelerated by brief prebaking in microwave oven of specified parameters
LEFEUVRE S 04.06.76-FR-016906
*(21.01.81) *DE2725-175 A21b-02*
25.05.77 as 021980 (3pp1376)
In bread baking using conventional heating simultaneously with micro-wave heating, microwave heating is ended first. Pref. the conventional heating is infra-red. The microwave generator is pref. a magnetron having a power of 5 Kw at 2450 MHz.
Baking time is reduced.

DORS- ★ D11 04317 D/04 ★GB 2051-656
Partially cooked farinaceous food extrusion device - using liquid cooled or heated auger and barrel
DORSEY-MCCOMB DISTR 01.06.79-US-044545
(21.01.81) B29f-03/08
22.04.80 as 013182 (8pp 295)
An extrudder has a stationary barrel which surrounds a rotating auger whose shank diameter increases towards the extrusion die. Pref. the ratio of the auger dia to its length is 1:10 and pref the barrel is constructed of three sections arranged serially. Pref the die head comprises a frusto-conical serrated mole part attached to the auger and a complementary female part attached to the barrel.

The barrel carries liquid jackets and liquid is pumped through a bore in the core of the auger. The liquid may heat or cool the product being extruded.

The appts extrudes a farinaceous partically cooked food under controlled temp.

MORA- ★ D11 D/04 ★RO --67-743
Twin drum cutter for bread-baking - has servomotors for controlling the inter-drum distance and the gearing, and dial monitoring of material feed
INTR MORARIT PANIFI 12.09.75-RO-083372
T06 (20.10.79) A21c-07/06

KLIN/ ★ D11 05590 D/04 ★US 4243-687
Freeze dried bakery compsn. - comprises Lactobacillus sanfrancisco in flour culture media
KLINE L 10.01.79-US-002476 (13.06.77-US-805681)
(D16) (06.01.81) A21d-08/04
10.01.79 as 002476 Div. ex. 4140800 (23pp513)
Freeze dried bakery compsn. comprises Lactobacillus sanfrancisco in a flour culture medium which has been subjected to incubation conditions suitable for growing the bacteria prior to freeze drying. The lactobacillus sanfrancisco is initially present in an amt. giving an initial count of at least about 5 x 10 power 6 viable cells per gram of culture medium prior to incubation. At least ca. 20% of the viable bacteria produced during incubation are recoverable after freeze drying.

The weight ratio flour to water in the culture medium prior to about 1:1 to 1:2.5, the gluten of the flour being substantially undeveloped during incubation. The culture medium contains at least about 6 wt. % of at least one disaccharide stabiliser prior to

freeze drying to improve recovery of viable Lactobacillus sanfrancisco, and a residue of water of not more than about 4 wt. %. The prod. is used as a French bread bread starter culture or as a baking additive for other prods. such as English muffins. US 4140800 (17931B/09) claims the prodn.

KANE- ★ D11 05592 D/04 ★US 4243-689
Instant dry noodles prodn. - by forming dough without kneading, and alpha conversion of starch before drying
KANEBO FOODS LTD 12.01.78-JP-003063
A97 (06.01.81) A23l-01/16
04.01.79 as 001352 (10pp955)
Non-fried oil free instant noodles are prepd. by (a) prepg. a dough based on wheat flour and contg. at least 25% water, avoiding kneading as much as possible; (b) forming the mixt. into a web; (c) steaming the web to at least 93% starch alpha conversion as measured by the diastase method; (d) drying the web to 15-35wt.% moisture; (e) shaping into individual noddles and (f) further drying to a water content of not more than 10wt.%.
The noodles have a long storage life while dry, do not stick together, hydrate rapidly and have good texture and taste.

KANE- ★ D11 05593 D/04 ★US
Instant dry macaroni prodn. - by formation of dough kneading, and alpha conversion of starch before drying
KANEBO FOODS LTD 19.01.78-JP-004865
A97 (06.01.81) A23l-01/16
16.01.79 as 003934 (10pp955)
Instant macaroni is prepd. by (a) forming a mixt. contg. 25- water and wheat flour, opt. with another grain powder or without kneading; (b) steaming the mixt. to 60-80% starch conversion as measured by the diastase process; (c) form mixt. into shaped pieces; (d) steaming the pieces to at lea alpha conversion; (e) drying the pieces to a moisture conte more than 10wt.%.
The macaroni has a long storage life, does not stick tog hydrates rapidly, has smooth surfaces and good texture and ta

See Also
D13 DE 2925516 D16 EP --21179

D12: MEAT; FISH PROCESSING

STAN/ ★ D12 03788 D/04 ★DE 2924-452
Freeze-dried meat additive compsn. - contg. hydroxy-carboxylic acid and/or poly:hydroxy-carboxylic acid and/or their sodium salt derivs.
STANGE B 18.06.79-DE-924452
E17 (E12) (15.01.81) A23b-04/04 A23l-01/31
18.06.79 as 924452 (11pp200)
Additives for freeze-dried meat prepn. contain at least 20wt.% hydroxycarboxylic acids having 1-6 COOH functions and/or polyhydroxycarboxylic acids built up of monomer units contg. 1-6 COOH functions, and/or their Na partial and/or full salts and (2) no more tban 80wt.% standard meat-processing additives, e.g. ionic and/or nonionic emulsifiers, spices, NaCl, nitrite pickling salt, starter cultures for meat ripening and/or milk protein. The additives can be used as such or as aq. solns. or dispersions.
Tbe freeze-dried meat is used in food compsns. Tbe use of freeze-dried or rehydrated freeze-dried meat in instant meals, sauces and sausage mfr. is claimed. The additive compsns. improve water-bonding capacity on rehydration. The meat prods. can be stored at ambient temps. without cooling.

SOPP- ★ D12 03824 D/04 ★DE 2925-600
Netted sausage skin hose - with elastomer yarn added to textile meshes in specified pattern
FA SOPP W & CO GMBH 25.06.79-DE-925600 (00.00.79-DE-912961)
(15.01.81) A22c-13
25.06.79 as 925600 (7pp39)
The Parent Patent No. 2912961 described a netted hose to act as a sheath for sausages, made of plaited or twilled meshes (of hexagonal shape) with at least two branches, each contg. at least one textile yarn.
It is now suggested to add an elastomer yarn, either in every third mesh of a horizontal row, passing along an inclined branch of a mesh into its vertical branch and into the inclined branch of tbe next row, or as a vertical textile yarn twisted with an elastomer yarn, passing tbrough tbe diagonals of every third mesb.
This simplifies tbe mfr. and ensures the desired sbrinkage action.

KERN/ ★ D12 03890 D/04 ★DE 2927-606
Closure cap for humane killer - with safety lock for trigger in tensioned and untensioned percussion lever position
KERNER K 07.07.79-DE-927606
P62 (15.01.81) A22b-03/02 B25c-01/10
07.07.79 as 927606 (18pp39)
The closure cap for a cartridge actuated humane killer in abattoirs has a trigger which cooperates with the percussion lever for the percussion pin through its pointed end resting in a notch when not tensioned. In the tensioned position it engages a second notch. In both positions, a springloaded ring with a detent must be turned by one hand, before pressure on the trigger by the other hand can cause any trigger movement.
The percussion pin remains in a place where it cannot be accidentally damaged. The trigger is secured against unintentional operation in both positions.

VOLK- D12 64741 T/41 = DS 2238-873
Fish handling machine - for automatic heading cleaning etc
VEB VOLKSWERFT STRA (GNO) 12.10.71-DD-158229
*(15.01.81) *DD--91-326 A22c-25/08*
07.08.72 as 238873 5pp39)
A feed mechanism for fish to fish processing machines incl supply conveyor on which the length of a fish is determine scanner. Depending on the fish length, a head stop automatically and the fish contacts it after pairs of inclined with grooves have taken over from the conveyor.
Contact with the stop causes the rollers to be withdrawn bri that the fish can be gripped by three pairs of endless vertical These belts have bosses on their contact surface and take the the processing machine.
This automatically corrects the fish position depending length.(DS)

BEAF D12 01985 D/02 = EP
Puffable fried snack food prodn. - by mixing starch with parts, gelatinising at least partly during extrusion and puffing
BEATRICE FOODS CO 18.06.79-US-049063
*(07.01.81) *WP8002-788 A23l-01/* + A23p-01*
13.02.80 as 100716 (37pp200) (E) DE2822658 US4163804 DE2 US4119742 US3401045 US3725084 E(AT BE CH DE FR GB IT I SE)
Puffable food compsns. are prepd. by reducing the fat cont dried animal parts, passing the defatted animal parts throu extruder under high temp. and pressure to form a mouldable extruding to a shape-sustaining form and cutting into portions.
The novelty comprises (1) mixing the animal parts with 10-75 up to 55) wt. % starch, based on starch and animal parts, (2) ke the extruder at a temp. at which the starch and opt. the animal are at least partially gelatinised, pref. 210-350 (esp. 250-330) d and (3) cutting. The mixt. fed to the extruder contains 1 moisture and less than 15% fat..
The prods. are food snacks having the taste, texture and f fried pork skins. Starch addn. reduces costs without reducir fried pork skin flavour and texture. Starch gelatinising prop are similar to those of the animal parts. Gelatinisation paran can be extended.

FARH D12 00045 D/01 = EP --
Protective netting for hollow sausage skin rods - anchored by p on annular discs engaging in netting meshes
HOECHST AG 08.06.79-DE-923187
*A97 Q34 (07.01.81) *DE2923-187 A22c-13*
06.06.80 as 103154 (12pp39) (G) FR2303480 OE2510637 DE2 UE2733996 E(AT BE CH DE FR GB IT LI NL SE)
Sausage skin, made of cellulose hydrate and compressed corrugated hollow rod for use on the filler tubes of sausage stu machines is supported by an outer netting, made of a material as PVC, polyamide, polypropylene or, preferably, polyethylen the open ends of the hollow rod, annular discs of the same wid the corrugations are held in position by turning over the nettin folding it back over itself on the outside. The annular discs radial prongs on the outside which act as tensioning anchors fo meshes of the netting..
The arrangement makes it impossible for the supporting she change its fit around the hollow rod of corrugatd skin and ensu permanently stable shape for it.

D12 90357 C/51 = EP --21-188
f tubular packaging sleeve - esp. sausage casing, comprises inking synthetic film with aluminium wire clip
CHST AG 08.06.79-DE-923186
Q32 *(07.01.81) *DE2923-186 + A22c-11/12*
as 103155 (13pp1045) (G) FR2310927 US-687830 US2816837 LU--1575328 GB1180067 E(AT CH DE FR GB LI)
of a tubular, thermoplastic, heat-shrinking packaging film, lyethyleneterephthalate, is gathered together and clipped by clamp. The zone put under compression by Al wire clip Al) is subjected to thermo-mechanical treatment, and d so that an impermeable seal is made. The film pref. has a rinking capacity of 20%. Heating is effected by electrical n and the densified seal is cooled afterwards..
rocess is applicable partic. to the packaging of sausagemeat, eal is obtd. which is impermeable to fluids or gases.

D12 00046 D/01 = EP --21-189
ge skin support sleeve - made of specified plastics netting with rned over annular discs
ECHST AG 08.06.79-DE-923188
Q34 *(07.01.81) *DE2923-188 A22c-13*
0 as 103156 (22pp39) (G) DE2733996 FR2303480 DE2510637 7238 DE2511770 E(AT BE CH DE FR GB IT LI NL SE)
tic sausage skin, usually made of cellulose hydrate or hoses of mer such as polyester or polyamide, are supplied and used in rm of hollow rods, produced by the hose compressed to a ated column.
pporting container for this hollow rod is made of cylindrical oplastic netting, with both ends inverted over annular discs of h equal to the width of the corrugations, leaving the inside ter of the hollow rod clear.
ot forming operation puts the end sections into a permanent ..
produces a functional unit which secures the ends of the rting sleeve. It prevents damage to the sausage skin rod by al stresses.

D12 04123 D/04 ★EP --21-198
pulling while electrically shocking carcass - using several per second to stimulate muscles reducing back breaking
AT IND RES NZ INC 05.06.79-NZ-190638
(07.01.81) A22b-05/16
0 as 103166 (9pp295) (E) NO-CITNS. E(DE FR GB IT NL)
de is pulled from a carcass which is stimulated by electrodes. rol circuit delivers current pulses, pref. 5-30 per second, pref. rnating polarity.
f. the control circuit includes a triac and counter circuit which rs the triac every 7 half cycles of the mains supply..
trical stimulation of the carcass muscles increases their y and prevents dislocation of the vertebrae.

D12 04230 D/04 ★FR 2452-252
ving protective tissue from required muscle tissue - in animal sses, for the prodn. of nutritious food prod.
URNIER C 28.03.79-FR-008279
.11.80) A22b-05
79 as 008279 (6pp448)
cher's process of removing the protective tissue from required le tissue of cows, calves, sheep, etc. In partic. the removal of us membrane from the oesophagos so that the latter can be o prepare a highly nutritious food prod.
tubular oesophagus is first turned inside out so that the us membrane appears on the outside. A rigid supporting rel is inserted into the passage through the oesophagus which en hardened by freezing to -30 deg.C. The outer mucous brane is then machined off on a cylindrical grinding machine.

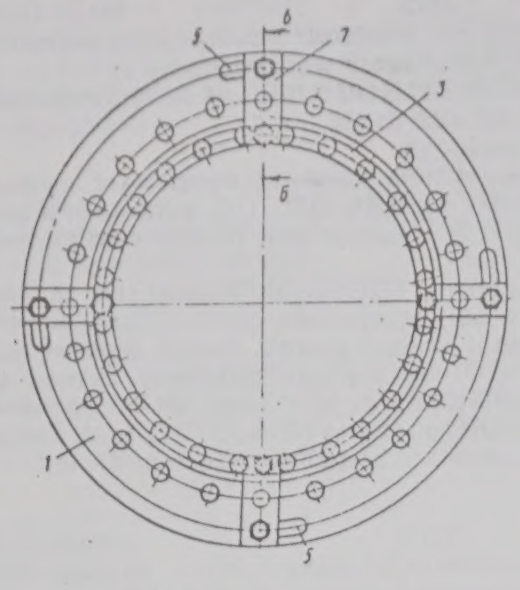
D12 04295 D/04 ★GB 2051-550
ng meat esp. hamburgers without juice loss - by heating in bath ce or liq. simulating the juice
ETERS L 30.05.79-US-043731
1.01.81) A23l-01/31
80 as 001714 (31pp 955)
or a meat patty is deep fried by immersion in a liquid of similar lity, colour and flavour to its own natural juices, maintained at 2 deg F. The method is esp useful for hamburgers, which are d in a heated medium approximately equivalent to the natural s expressed on cooking.
loss due to juice loss, and collagen losses are greatly reduced. prod has a superior, more tender texture. Generation of nogens due to charring is avoided. The method uses energy efficiently than grilling or griddle cooking. The method is enough for fast food restaurants.

NICA ★ D12 04650 D/04 ★J5 5148-072
Synthetic salmon roe foodstuff - comprising outer layer of gel and core of sol or gel with higher water content
NIPPON CARBIDE KOGY KK 07.05.79-JP-054750
A97 (18.11.80) A23l-01/32
07.05.79 as 054750 (6pp42)
Salmon-roe-like artificial food (I), consists of an outer coating (II) layer and the inner compsn. (III), (II) is made of a gel contg. 85-95% of water and (III) is a sol. or gel. (I) has similar texture to that of natural salmon roe.
The water content in (III) should exceed that in (II). Cpds. used to prepare (II) are polysaccharide, protein, and polypeptide such as agar, dextrin, gum arabic, starch, casein, gelatin, albumin, sodium alginate, etc. whereas methyl cellulose, casein, pectin, sodium polyacrylate, gelatin, etc. are used as components in (III). To prepare (I), granules made of (II) and (III), both contg. higher water content than those described above are dehydrated.

UNIC D12 03869 X/03 #J8 0051-542
Machine for concertina-folding tubular sausage skins - controls different gas pressures for skin inflation in drying and folding zones
UNION CARBIDE CORP 28.06.74-US-484207 (29.06.74-JP-074829)
*T06 + P15 (24.12.80) *BE-830-742 + A24b-03/14*
29.06.74 as 074829 (5pp)
Mechanical attachment for a machine which axially concertinas tubular sausage skin by folding it in a succession of annular pleats comprises a feeder which advances the tubular skin from a first processing zone to a second with a pressurised gas supply to the inside of the tube and between the two zones. The attachment regulates a differential gas pressure within the tube in the two zones. The attachment comprises a cylindrical, support roller against the circumference of which the inflated tube is squeezed by two spaced pressure rollers on axes parallel to that of the support roller, the two pressure rollers being independently adjustable to vary their spacings from the support roller, and pref. also from each other, so that the pressurised gas space in one zone communicates with the gas space in the other zone via throttled section of the tube controllably squeezed in the attchments rollers.
Pref. the support roller is power-driven and is larger in dia. than the two pressure rollers which are pref. of equal dias. The pressure of inflation gas, usually air, is kept higher in one zone of a folding machine for sausage skins than in the adjacent zone.
In the drying zone the inflation gas is kept at a pressure below 2.5 cm. water while the inflation pressure in the folding zone is up to about 3.4 metres water; partic, with collagen skins this pressure differential prevents damage to skin. (J51001699).

SYST- ★ D12 05073 D/04 ★NL 7904-779
Removal of neck from plucked, headless fowl carcasses - by clamp including hammer head pressing out broken vertebrae
SYSTEMATE BV 19.06.79-NL-004779
(23.12.80) A22c-21
19.06.79 as 004779 (11pp1014)
Breaking tool in the form of a hammer head fitted on the free end of a shaft which pivots at its lower end on a horizontal axis, and has a knife-like pane projecting forwards, is provided in an arrangement for removing the neck of a plucked, headless fowl hanging from a conveyor.
Beneath the forked clamping detail which receives the neck of the fowl, and moves with the conveyor, lifting and lowering relatively to it, an auxiliary fork is fitted. In its active posn., the knife-like pane is located between the clamping fork and the auxiliarv fork.
The clamping fork projects from a carriage sliding on vertical guides forming part of a frame moving with the conveyor. The carriage and the breaking tool are provided with cam followers which engage with cam tracks and control the mutually synchronised motions of the tools.
The hammer head makes a quick and complete break through the neck vertebrae of the fowl and the knife edge separates them completely. Thus as the carriage descends, the neck bones are pressed out correctly The neck tissue is not damaged and is definitely not cut.

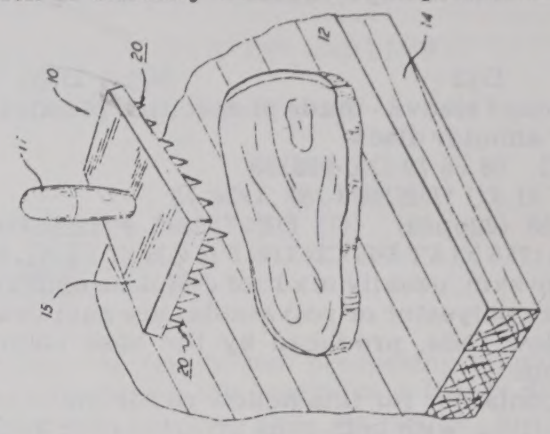
BUDA/ ★ D12 05183 D/04 ★SU-735-230
Oven for processing meat by/products - made as two concentric drums constructed of rods which can be positioned relative to one another to reduce the gaps and the loss of product
BUDANITSKII I M 07.05.76-SU-357276
(28.05.80) A22b-05/08
07.05.76 as 357276 (3pp29)
Oven for processing meat by-products, comprising a hollow perforated drum, underneath which is a gas-burner, plus a loading hopper and combustion gas flues. Reduced loss of product being processed and increased quality are obtained by positioning an extra drum inside the main drum concentrically, so that it can be rotated and fixed relative to the main drum.



LAGO/ ★ D12 05184 D/04 ★SU -735-231
Meat cutter with reduced loss of crumb and juices - has chain-driven conveyor with pushers, forming chamber, knives to cut strips and disc knife for cutting to length
LAGOSHA I A 31.08.77-SU-523136
P41 (27.05.80) A22c-17 B02c-18
31.08.77 as 523136 (4pp29)
Meat cutter has increased productivity and provides reduced loss of raw material in form of crumb and meat juices. It has meat-feeding conveyor, chain-driven, with pushers for the meat, and linking plates; a forming chamber made as a rectangular box with a bottom which has a gap between it and the plates of the conveyor; a cutting mechanism and means to control the thickness of the cut. The pushers are continuous and mounted so that they can change position from the vertical to the horizontal as they interact with the forming chamber. Bul.19/25.5.80.

MOMD ★ D12 05185 D/04 ★SU -735-232
Heat-processing equipment for meat prods. for children - has inlet pipes for ingredients, distributing containers, rotating discs and film-forming rings
MOSCOW MEAT DAIRY INST 13.04.78-SU-606875
(28.05.80) A23b-04/04 A23c-03/02
13.04.78 as 606875 (3pp29)
Heat-treatment equipment for meat prods. fed to children has chamber with rotating disc, pipes to deliver the prod. and live steam, and pipe to remove the processed prod. Productivity is increased by installing extra discs which can be rotated, with rings to form films, plus containers to distribute the product, placed above the discs and capable of controlling the film thickness. All the discs and containers are distributed axially and have different cross-sections, decreasing in the direction the product is moving towards the discharge position. Each ring is mounted concentrically with the respective disc and container.

MASS/ ★ D12 05394 D/04 ★U
Meat tenderiser comprises handled plate - carrying rows blades on underside
MASSARO M F 13.07.79-US-057445
(06.01.81) A22c-09
13.07.79 as 057445 (5pp1358)
A tenderiser has a flat support plate with a handle secured surface and thin blades mounted in rows along its bottom Each blade has downwardly depending teeth aligned length. Each tooth ends in a point and every other tooth i than its adjacent teeth. Each tooth is pref. shaped as an eq triangle in the plane of the blade, and the two equal sides tooth are provided with a knife edge so that the tooth can ea through meat fibres. The alternate teeth are pref. half the remaining teeth, and the root of each blade is formed as dovetail which is slidably held in a complementary groov plate.



FARH D12 88023 A/49 = US 4
Tubular packaging material of laminated polyamide film - fo non-wrinkling sausage skins
HOECHST AG 28.05.77-DE-724252
*A94 Q34 + P73 Q67 (A17 A23 A97) (06.01.81) *DE2724-252*
27/06 B65d-81/34 F16l-11
26.05.78 as 910144 (6pp963)
Multilayer tubular packaging comprises at least 1 first la linear polyamide and, bonded to its outer surface, at lea second layer mainly comprising linear polyamide and 2-40 wt as a hydrophilic substance. Pref the PVA is a partially sap form contg less than 15% unsaponified ester gps. In f embodiments, the first layer may comprise a blend of poly and polyethylene, or the first layer may be multiple lay polyamide and polyethylene.
Prodn. is partic suitable as a wrinkle-free packaging for sau which are subsequently treated in hot water or steam.

See Also
D13 FR 2452255

D13: OTHER FOODSTUFFS

RALS ★ D13 03755 D/04 ★BE -885-090
Protein isolated from defatted vegetable protein - by aq. extn., pptn., heating and concn. to give a white prod.
RALSTON PURINA CO 07.09.79-US-073407
(31.12.80) A23j
04.09.80 as 885090 (23pp597)
The process comprises (a) extracting the protein material with an aq. extracting agent to obtain an extract of at least pH 6.5; (b) adjusting the pH to the protein isoelectric print to ppte. the protein; (c) heating the pptd. protein to 46.1-62.8 deg.C and (d) concentrating the pptd. protein to above 44% solids. In another embodiment, stage (a) includes a 2nd aq. extraction of the residue, the extract being combined with the 1st extract. In a further embodiment stage (a) extract is at pH 7-10, stage (b) is at pH 4-5 and a drying stage is also included.
The process is more easily carried out than previously proposed processes, gives a higher yield and also a whiter prod.

VALI- ★ D13 03771 D/04 ★CH -620-575
Improving milk quality from clostridium-infected cows - by treating with antibodies or ferredoxin inhibitors
VALIO MEIJERIEN KES 10.07.75-CH-009041
C03 (15.12.80) A23c-19 A23k-01/16
10.07.75 as 009041 (3pp367)
Method of improving the quality of cheesemaking milk from cows whose dung contains less than (sic) 200 clostridia per comprises adding the following components to the cows' fe milk contg. specific antibodies against clostridia, or a co contg. one or more ferredoxin inhibitors e.g. nitrates or borate (b) a substance which promotes digestion processes in the rume a sugar.
The treatment reduces the clostridium count to acceptable (e.g. from more than 10'000 to less than 200 per gram) so that th is suitable for making cheese (esp. hard cheese).

DECK- ★ D13 03822 D/04 ★DE 29
Packaged unused bread conversion to animal fodder - by shred screening and pneumatic sifting to remove packaging
DECKER & HAARMANN 25.06.79-DE-925516
C03 (D11) (15.01.81) A23n-17
25.06.79 as 925516 (11pp39)
A machine to separate packaged bread which bas not been sol fixed date and is to be used for pig swill is used to remove p plastic or aluminium foil. A revolving shredding drum moves to a grating, and a vibratory screen below the latter drop underflow on an endless conveyor.
A pneumatic separator with a fan impeller treats the s overflow and only the beavier particles fall through a grating c conveyor.
This eliminates the beavy labour cos.s for manual unwra and disposal of the wrappings and makes the use of unsold pack

or animal fodder attractive.

★ D13 03839 D/04 ★DE 2926-055
ed animal feedstuff esp. for poultry and fish - contg. finely fat and/or protein coated with or encapsulated in a starch-natrix
KER F J 28.06.79-DE-926055
(15.01.81) A23k-01
as 926055 (10pp280)
ew process for the prodn. of stabilised feedstuff, finely late fat and/or proteins coated or encapsulated with a starch (at least partly in pasty form), and the product is cooled and ied.
try feeds contg. fat with a particle size of less than 5 microns p to 7% increase in growth rate, and fish feeds can contain fat provided the particle size is 2 microns or less. The new s permits carcass fat and/or protein of the requisite particle be incorporated cbeaply and in a stable form into animal

★ D13 03860 D/04 ★DE 2926-739
urised milk filling plant - sterilised by hot water and heated steam circulation cycle (NL 6.1.81)
PIER & KUNSTSTOFF 03.07.79-DE-926739
.01.81) A23c-03/02
79 as 926739 (12pp39)
urised milk is filled from a storage tank into containers after peater witb the adjoining piping has been sterilised endently from the filling macbine. The former is sterilised by ating hot water of 95-115 deg.C through tbe piping in a closed t; the latter is sterilised by superbeated steam of 120-140 deg.C. g the subsequent filling operation, the milk is directed from the r straight to the filling machine.
s is a simple system to prevent any re-infection of pasteurised during a filling operation so that tbe milk keeps longer.

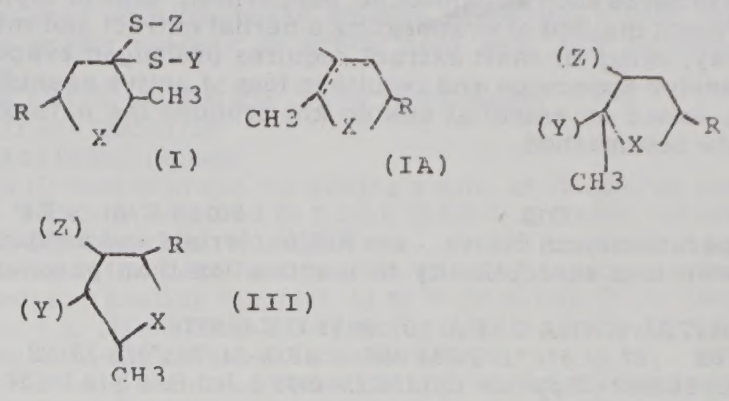
R- ★ D13 03909 D/04 ★DE 2928-240
al feed prodn. from green fodder - by crushing, protein ulation and mechanical dewatering (HU 28.08.79)
NERGIAGAZDALKODASI 03.04.76-HU-EE2416 (12.07.79-DE-8240)
03 (15.01.81) A23k-03/02
79 as 928240 (16pp367)
n. of storage-stable animal feeds from protein-contg. green r plants (e.g. alfalfa, grass or clover) is carried out by (a) ning or bruising the harvested plants without destroying their us structure, (b) coagulating proteins by heating at 40-100 (pref.) deg.C for 2-4 min., and (c) mechanically dewatering the uct.
p (a) is pref. effected by passing the plants between rolls ving at different speeds. Step (c) can be effected by vacuum tion, centrifuging, vibratory dewatering or pressing. An xidant is pref. added to the dewatered product, which can then ound, pelletised and packed in opaque material.
e process is inexpensive to operate and gives a product ning practically all of the useful components of the plants.

:- ★ D13 03956 D/04 ★DE 3022-789
rie-free chewing gun compsn. - contg. matrix enclosing air ies filling with water on chewing, filler or structuriser, tener and softener
IFE SAVERS INC 18.06.79-US-049536
97 (15.01.81) A23g-03/30
.80 as 022789 (16pp200)
rie-free chewing-gum compsn. contains a calorie-free matrix, prising a natural or synthetic elastomer chewing material, 50-85 0) wt.% calorie-free, inert filler or structurising agent, 0.1-5 , calorie-free sweetener, opt. 5-10 wt.% calorie-free softener and calorie-free flavouring agent. The compsn. contains at least 10 8) wt.% air cavities enclosed in matrix, which fill with moisture iewing.
e chewing gum compsn. is soft and chewable from the start and ains soft, as it contains no water-extractable materials. On ving, chewing gum compsn. vol. increases by at least 100%, pared to a decrease of 5-15% in standard compsns.

TN- D13 49287 T/31 = DS 2165-808
lhur derivs of furans or thiophenes - useful as aromatizing agents
FW NEDERLAND BV (POL) 08.01.71-NL-000235
*13 + P55 (15.01.81) *DE2165-808 A23l-01/23 C07d-307/02 C07d-33/34 C07d-409/12 C07d-495/20*
2.71 as 165808 (5pp068)
sulphur cpds. have formula (I) X is S or O; R is H or CH3 and Y and Z is a gp. (Ia). There is a double bond in one of the positions lked by the dotted line or Y and Z together form the gps. (II) or

ch cpds. may be prepd. by reacting a soln. of the appropriate tetrahydrofurane-3-one or tetrahydrothiophene-3-one with H2S in presence of a base.

The cpds. are useful as aromatic agents for foods.(DS)



NEST D13 42010 X/23 = DS 2549-391
Instantly soluble dehydrated food products - by extruding thermoplastic powders of paste, then expanding and cutting
MAGGI AG 17.12.74-FR-041603
*(15.01.81) *BE-835-655 A23l-01 A23l-02/38*
04.11.75 as 549391 (7pp068)
Porous granules of soup, dehydrated sauce, fruit or flavouring extract or aromatic agents which dissolve rapidly in water are prepd. An initial material as powder or paste and with a water content of up to 20% at a temp. of 60-125 deg.C is extruded from a chamber with a pressure of 1-15 bar into a chamber with a pressure of 0.01-0.3 bar and the extrudate cut into pieces.

The pieces have a porous inner structure which helps them to dissolve.(DS)

CORP D13 42385 A/24 = DS 2654-820
Aminoacid mixt. for aminoacid metabolism disorders - contg. basic aminoacid(s) as salts with acidic aminoacid(s), esp. glutamic acid
MAIZENA GMBH 03.12.76-DE-654820
*B05 E19 (15.01.81) *DE2654-820 A23l-01/30*
03.12.76 as 654820 (5pp)
Aminoacid compsn. for use as nutrients, esp. for children with abnormal aminoacid functions, contain basic aminoacids, opt. in the form of salts with at least one acidic aminoacid, as the active components. Tyrosine, tryptophan and/or methionine are present as the N-acyl (esp. N-acetyl) aminoacids and/or dipeptides; asparaginic and/or glutamic acid are present as asparagine or glutamine; together with a wide range of other aminoacids, minerals, trace elements and vitamins.(DS)

MEDI= D13 68219 B/38 = DS 2808-803
Feed-concentrate powder polymer coating - to protect against atmospheric moisture, formed by dispersing concentrate in polymer soln. and subsequently removing solvent
MED TECH RES INST (LIVA = ALMI) 01.03.78-DE-808803
*A97 C03 (15.01.81) *DE2808-803 A23k-01*
01.03.78 as 808803 (6pp)
Process for protection of powdered fodder concentratescomprises dispersion of these powders in a polymer soln., addn. of the dispersion to a non-polar oil, and evapn. of solvent; the polymer-coated particles are then recovered and washed with a solvent which dissolves the non-polar oil. The oil may contain a dispersion of solid wax, e.g. paraffin, wax or lower polyethylene (0.5-15%, based on the oil). Pref. polymer solns. comprise cellulose derivs. such as acetyl-, acetylphthalyl-, acetylpropionyl- or acetylbutyrylcellulose (3-15 wt.% based on dry prod.) in Me2CO or dioxane.(DS)

MERK/ D13 00128 D/01 = EP --21-052
Bird feed block e.g. bar or rod - contg. water glass binder bonding bird-grains and nutrient additives
MERKL A 13.06.79-DE-924002
*C03 + P14 (07.01.81) *DE2924-002 A23k-01/18 + A01k-39/**
22.05.80 as 102865 (13pp200) (G) NO-CITNS. E(AT BE CH FR GB LI NL SE)
Bird-feed block consists of bird grains and additives, e.g. vitamins, minerals and trace elements, bonded to one another with a water glass binder, pref. of sodium and/or potassium water glass..

The water glass binder strongly bonds the bird-feed block, yet the birds can pick the grains with their beaks.

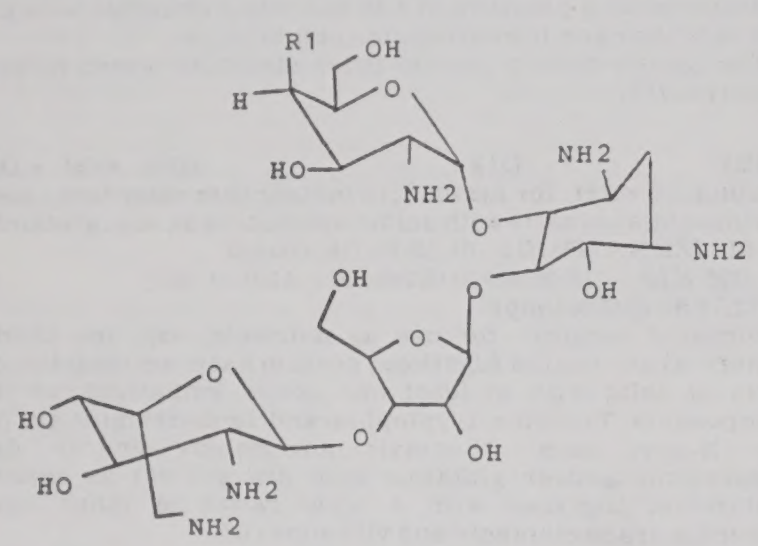
RICH D13 02118 D/03 = EP --21-102
Herbal sweets mfr. - by adding ground herbs to hot filler paste for hard sweetmeat shells
RICHARDSON-MERRELL INC 22.06.79-DE-925229
*(07.01.81) *DE2925-229 A23g-03*
29.05.80 as 102998 (7pp39) (E) NO-CITNS. E(AT BE CH FR GB IT LI NL SE)

Herbal sweets are produced by enclosing a core of a viscous filler paste with a taste of aromatic herbs in a hard shell of sweetmeat. The prefd. material for the filler paste is extremely fine ground particles of herbs such as camomile, peppermint, sage or thyme..

The present method of evaporating a herbal extract and mixing it with honey, syrup or malt extract requires prolonged evaporation and expensive apparatus and results in loss of active agents. Other methods, based on essential oils do not produce the natural fresh taste of the new method.

FARM D13 90156 C/51 = EP --21-150
Desoxy paromomycin derivs. - are antibacterials and antiprotozoal agents with less susceptibility to inactivation than paromomycin itself
FARMITAL ERBA C SPA 07.06.79-GB-019778
*B02 C02 (07.01.81) *BE-883-686 + A61k-31/70 C07h-15/22*
03.06.80 as 103089 (25pp520) (E) DE2364999 3.Jnl.Ref E(AT CH DE LI NL SE)
Paromomycin derivs. of formula (I) and their salts are new. (R1 is H or Cl)..

Cpds. (I) are antibacterial agents active against Gram positive and negative bacteria. They are also antiprotozoal agents. The cpds. are of partic. use in the treatment of amoebic dysentry, shigellosis, and salmonellosis. They may also be used in animal feed supplements. Cpds. (I) are less liable to be inactivated than is paromomycin itself.



MEGG D13 02143 D/03 = EP --21-200
Snack products based on casein foam - impregnated with aq. soln. contg. alcohol and/or sugar
MEGGLE MILCHIND GMB 27.06.79-DE-926010
*(07.01.81) *DE2926-010 + A23g-03/20 A23j-03/02 A23p-01*
06.06.80 as 103168 (12pp367) (G) FR2181641 GB2004174 DE2742083 DE2845571 FR2361821 GB2005981 US2538202 E(AT BE CH DE FR GB IT LI LU NL SE)
Snack articles comprise a casein-based protein foam with a pH of 5.5-8 (pref. 6.0-7.5) impregnated with an aq. soln. contg. an alcohol and/or a sugar, and opt. coated with a confectionery compsn. The aq. soln. has a water content of 40-75 (pref. 58-70) wt.% and a pH above 4.8, and opt. contains flavours and other additives..

The articles have a consistency ranging from soft to hard without being rendered rubbery or leathery by impregnation.

SCMZ D13 01578 D/02 = EP --21-279
Low fat coffee whitener - contg. sweetener, water-dispersible protein,and fluid shortening
SCM CORP 25.06.79-US-051994
*(07.01.81) *US4239-786 A23c-11/02*
13.06.80 as 103305 (20pp478) (E) NO-CITNS. E(AT BE CH DE FR GB IT LI LU NL SE)
A whitener compsn. is prepd. by mixing (as major ingredients) a sweetener (I), a water-dispersible protein (II), a lipid system and water. The lipid system (shortening) (pumpable at room temp. but stiff enough to resist phase sepn.) consists of a hydrogenated, beta-forming mainly 16-18C fat (III), a stable suspension of a fine crystalline, normally solid phase fat or fatty acid derived food stabiliser (IV), and an oil/water emulsifier (V). (III) is bland in flavour, has iodine-value 85-100, and SFI (at 50 deg.F) 10-18..

The compsn. is effective as a coffee whitener at reduced lipid levels, and is readily prepd. by metering the shortening into the remaining ingredients. The compsn. has good flavour stability over reasonable shelf periods.

BOEF ★ D13 04168 D/04 ★E
Fructose determination in the presence of other sugars - by with uridine-5'-di:phospho-glucose and saccharose synthet determination of uridine di:phosphate
BOEHRINGER MANNHEIM GMBH 25.06.79-DE-92553
B04 J04 S03 (D16 S05) (07.01.81) C12q-01/54 G01n-33/02
16.06.80 as 103353 (21pp200) (G) 5.Jnl.Ref E(AT BE CH DE F LI LU NL SE)
Fructose and fructose-contg. glucosides are determined by the fructose, opt. first released from the glucoside, with ur diphosphoglucose, (UDPG), and saccharose synthetase, pre 6-10.5. The uridine-5'-diphosphate, (UDP) formed is determ standard methods.

A reagent for determining fructose and fructose-contg. glu is also claimed and contains UPDG, saccharose synthetase and a system for UDP determination..

The process is used esp. for determining fructose in bi substances, e.g. foods and body fluids Fructose and fructos glucosides can be determined in the presence of an excess sugars or polysaccharides.

DIAS D13 78812 C/44 = EP
Mixt. of vitamin/A with trace mineral supplement - in supplement comprises finely divided particles coated wit sulphonate to prevent degradation of vitamin/A
DIAMOND SHAMROCK CORP 18.06.79-US-049097
*C03 (07.01.81) *US4228-159 + A23k-01/17*
16.06.80 as 103355 (23pp914) (E) US2496634 DE2430267 E(BE FR GB IT LI)
A trace mineral supplement is composed of small solid g Particles which pass through a 16 mesh screen but are reta an 80 mesh screen. Each particle is an intimate mixt. of (a) one trace mineral and (b) an effective amt. of lignin sulphon reduce degradation of vitamin A when the trace materia contact with the vitamin.

A mixt. of vitamin A and the trace mineral supplement claimed..

Vitamin A and trace mineral supplement are both ingredi poultry and livestock feeds. Normally the trace minerals deterious effect on the vitamin A, but this effect can be redu treating the trace minerals with lignin sulphonates before b them into contact with vitamin A.

FARH D13 02174 D/03 = EP
Life-prolonging feed and feed additives for animals e.g. pets secondary alkyl sulphonate(s) derived from unbranched p hydrocarbon(s) contg. 10-21 carbon atoms
HOECHST AG 29.06.79-DE-926282
*C03 (07.01.81) *DE2926-282 A23k-01/16*
24.06.80 as 103569 (9pp280) (G) US2340063 3.Jnl.Ref E(BE DE F
New animal feeds and feed additives contain sec alkanesulphonates derived from straight-chain 10-21C p hydrocarbons..

The specified alkanesulphonates have a life-prolonging ef animals. This may be useful e.g. for domestic animals such or cats, or for laboratory animals (e.g. rats) used in lon studies.

Pref. alkanesulphonates are those derived from 13-17C p hydrocarbons. The alkanesulphonates may have a d polysulphonate content of up to 30%. They are generally in th of alkali or magnesium salts, pref. the sodium or potassium sa

COOP- ★ D13 04231 D/04 ★FR 2
Protein concentrates prepd. from defatted protein contg. par by spraying in screen-bottomed containers
COOP TRAITE PROD PE 26.03.79-FR-007500
(28.11.80) A23j-01
26.03.79 as 007500 (19pp)
The material in the form of particles of not greater than 250 size, is charged into a series of mobile containers the bot which is a screen able to retain the particles. Treatment solu is sprayed on the containers in the course of their displaceme process is carried out in an appts. comprising a continuous b containers which circulate through a treatment area above are a series of sprays. The concentrate obtained has a 15-50% protein fraction of the total protein.

The process is applied e.g. to defatted beans, lentils, sun cotton and calza seeds, esp. soya. It is simpler, more econom more adaptable than known processes giving a more nutriti material.

D13 04232 D/04 ★FR 2452-255
otein recovery from abattoir refuse - such as blood, by acid
n, filtration, and evaporation
ER MEX-EUROPE 26.03.79-FR-007525
D12) (28.11.80) A23j-01/06
as 007525 (11pp520)
nd other abattoir refuse such as feathers and bristles, wool,
s converted into proteinaceous nutrients by the following
. The refuse is treated with a strong base or acid-oxidising
mixt. and adjusted to pH 6-6.5. The mass is filtered to
te insoluble impurities. The clear liquid is treated to
te salts and the resultant liquid concentrated to a totally
emulsifiable powder.
as foodstuffs for animals and humans. Process is suitable for
ttoir residues, requires little mechanical fragmentation and
o polluting effluent. The prod. is perfectly digestible, of high
e value and has excellent organoleptic properties.

★ D13 04233 D/04 ★FR 2452-256
rod. based on mixt. of bran and cocoa powder - used to make
ate or dissolvable powder
ITARD L 29.03.79-FR-008419
11.80) A23l-01
9 as 008419 (4pp597)
rod. is used to make a chocolate bar or a dissolvable powder.
ran counters the constipating properties of cocoa-based prods.,
naking the prod. slightly laxative; it also increases the vitamin
it.
pref. amt. of bran is 0.2-0.8 gm/gm cocoa powder. The bran is
mixed as a fine flour. Chocolate is pref. made by addn. of the
to a paste obtd. from roasted and ground cocoa beans and
genising the mixt., esp. with additives such as sugar and
ring.

3 ★ D13 04294 D/04 ★GB 2051-548
ture for growth of seaweed - comprises heat resistant sheet
rate coated with sea minerals
KAERT SA 04.06.80-GB-018249 (05.06.79-GB-019572)
4 C03 P13 (B07 D16) (21.01.81) A01g-33
80 as 018249 (3pp 1248)
ture for growing seaweed comprises a heat resistant sheet
rate covered with a coating of sea mineral(s). The structure is
in the prodn. of dry seaweed with minimum labour
rements. The seaweed is used for the extn. of algin, agar,
geenin etc. for use in foods, drug prepns., paints etc. The dry
eed is also useful as a fertiliser, in waste water purification etc.

C ★ D13 04647 D/04 ★J5 5148-055
ent emulsified drink having cholesterol lowering activity -
d. by sterilisation and water homogenisation of oil-in-water
sion contg. natural oils, lactose-free milk and
SAHI DENKA KOGYO 02.05.79-JP-054374
04 (18.11.80) A23c-11/04
79 as 054374 (5pp42)
compsn. is prepd. by sterilisation and homogenisation of an oil-
ter emulsion composed of 1.0-15.0 wt.% at least one of rice bran
afflower oil, corn oil, sunflower oil and wheat germ oil, 0.1-1.0
of emulsifier, 8.0-40.0 wt.% of defatted milk from which lactose
moved by hydrolysis and 44-91 wt.% water.
e present method affords a nutrient drink for a patient who can
igest lactose. (I) also has the effect for lowering cholesterol
in blood.
fore homogenisation, the emulsion is sterilised by being heated.
than 50% of lactose in the milk should be hydrolysed with use of
se.

C ★ D13 04648 D/04 ★J5 5148-056
itional emulsified drink prepn. - comprises sterilising and
genising oil-in water emulsion, and adding lactase before
aging to hydrolyse lactose during storage
SAHI DENKA KOGYO 02.05.79-JP-054375
04 (18.11.80) A23c-09/12 A23c-11/04
.79 as 054375 (5pp42)
n-water emulsion (II) is composed of 1.0-15.0 wt.% of one or more
e brane oil, safflower oil, corn oil, sunflower oil, and/or wheat
oil, 0.1-1.0wt.% of emulsifier (III), 8.0-40.0 wt.% of defatted
(IV), and 44-91wt.% of water.
fore the homogenisation, (II) is sterilised by heat. More than
of the lactose in (IV) should be hydrolysed. Examples of (III) are
xt. of sorbitan satd. fatty acid ester and lecitin, sucrose fatty
ester, polyoxy ethylene sorbitan fatty acid ester, fatty acid
eride and propylene glycol fatty acid ester. (II) should be
slified at 10-50 deg.C under a pressure of 30-70 kg/sq.cm. before
sterilisation, and then homogenized at 60-80 deg.C under a
sure of 100-250 kg/sq. cm. after sterilisation.
e method affords a nutrient drink for a patient who cannot
st lactose. (I) also has the effect for lowering cholesterol concn.
in the blood.

NAKA- ★ D13 04651 D/04 ★J5 5148-073
Mozuku food with improved storage properties - obtd. by adding slightly acidic vinegar or acetic acid soln. and seasoning, then heating
NAKANO SU-MISE KK 02.05.79-JP-053381
(18.11.80) A23l-01/33
02.05.79 as 053381 (3pp42)
Mozaku (I) food is prepd. by adding a soln. of vinegar or acetic acid whose which is adjusted to 5.0-6.5 (5.5-6.0), by addn. of alkali cpd. such as Na bicarbonate, NaOH etc., to (I), to adjust the conc. of acetic acid in the mixt. to 0.05-1.0%, (0.2-0.4%)- adding seasoning as required; and heating the mixt. at 40-70 (50-60 deg.C), for longer than 5 mins., e.g. (10-20 mins.). Seasonings such as sweeteners (sugar, glucose), salt, soy sauce, etc. may be added.
(I) retains its texture, colour and quality for a long period. (I) is Nemacystus decipiens, a seaweed of the family Spermatochnaceae highly ramified into thready filaments, considered a delicacy when seasoned with vinegar. Usually (I) can not be preserved for more than 1-2 days).

UNIL D13 24440 X/14 =J8 0050-664
Fatty food for frying sauce prepn - contg. fat, phosphatide,protein material, and effective amt of ammonium salt
UNILEVER NV 18.09.74-NL-012329
*(19.12.80) *BE-833-575 A23d-05 A23l-01/31*
17.09.75 as 112492 (3pp)
Fatty food prod. esp. for frying meat and prepn. of sauces, consists of (1) a fat, (2) a phosphatide, (3) a protein material, and (4) an effective amt. of an ammonium salt. Has good aptitude for browning meat and sauces during cooking. Gives cooked prods. with an excellent flavour.
Component (3) is pref. a mixt. of milk powder and skim milk powder in a wt. ratio of 2:1-1:10. Component (4) is pref. monoammonium adipate. Pref. contains 0.1-1.5 wt.% (2) and up to 10 wt.% (3). The content of (4) is 0.2-5 milliequivalent-grams per 100 g prod. May also contain 0.5-15 milliequivalent-grams citric acid and/or citrate per 100 g prod. and 0.2-1 wt.% calcium glutamate and 0.1-1 wt.% lactic acid. (J51057844)

STAU D13 88765 V/52 =J8 0050-665
Synthetic, powdered egg yolk prepn. - by stagewise boiling of proteins, oil, salt, starch thickeners and emulsifiers
STAUFFER CHEMICAL CO 23.07.73-US-381416
*(19.12.80) *BE-817-979 A21d-02 A23j-03 A23l-01/32*
23.07.73 as 159842 /79 (14pp)
Title prod. is prepared by (i) digesting a non-elastic protein material oil and salt; (ii) adding a weak acid (citric) and continuing heating to develop aroma; (iii) adding water and vegetables and boiling, (iv) adding more water and protein and boiling; (v) adding a thickening agent and boiling to give high protein substance; and (vi) adding an emulsifier, (mono-or diglyceride). Proportions are 55-95 pbw. protein rich material (sesame flour), 1-10 pbw emulsifier, 0-10 pts. lecithin, 0-15 pts. dye, 0-2 pts. texture improver, 0-4 pts. sodium bicarbonate. Other additives are maize syrup and albumin.
The compsn. may be dried before adding amulsifier. The substitute has similar protein content, taste and appearance to natural egg yolk, but low cholesterol and fat content, and has long storage life in the dried stage. It is used for cakes, macaroni, etc. (J55111774)

NIIG D13 68031 Y/38 =J8 0050-666
Fermented bean paste prodn. - using large amts. of yeast during initial fermentation to improve flavour
NIGATA PREFECTURE 10.02.76-JP-012759
*(D16) (19.12.80) *J52096-797 A23l-01/20*
10.02.76 as 012759 (4pp5)
Low salt-'miso' with good flavour can be prepared without acidification during ripening and preservation by adding excess of alcohol-fermentative yeast.
Low salt-'miso' (fermented bean-paste) is used in a form of sicks or 'miso' soup. By adding large amount of yeast prior to the fermentation, at the initial stage of the riping the multiplication of acidifying bacteria can be suppressed by the action of the yeast and hereafter acidifying bacteria are decreased gradually by the action of the fermentative products of the yeast such as alcohol etc.
Yeasts are Saccharomyces rouxii, Torulopsis versafilis, Torulopsis etchellsii and their analogues. The low salt-'miso' can be prepared by fermentation at 33-35 deg.C for 45 days with salt concn. ca. 4%. (J52096797)

DAII D13 89056 Y/50 = J8 0050-667
Anticaking agent for powdery foods etc. - contg. sucrose-, glycerin-, sorbitan-, or propyleneglycol-fatty acid esters
DAIICHI KOGYO SEIYA (DAUC) 28.04.76-JP-048780
*C03 E17 (19.12.80) *J52130-932 A23l-01/22 A23l-02*
28.04.76 as 048780 (3pp5)
Agent contains sucrose fatty acid ester, glycerin fatty acid ester, sorbitan fatty acid ester or propyleneglycol fatty acid ester. The agent can be applied to prevent caking of powdery foods, etc. such as powdery seasonings, powdery sauce, powdery juice, powdery coffee, sugar, salt, urea, cement, etc.
The fatty acid esters are nonionic surfactants and those having HLB value less than 10 can be used favourably. Usually the surfactants are combined. 0.1-5% in powdery foods, etc.
Using the anti-caking agent, caking of powdery foods can be prevented and their preserving time can be remarkably prolonged. Further the powdery foods become fluent, handling of them can be made easy and their commercial value raised. (J52130932)

MILE D13 42710 W/26 = J8 0051-533
Simulated bacon with natural texture - made from ovalbumin, vegetable proteins, oils etc. with different compsn. in alternate layers
MILES LABORATORIES INC 04.02.74-US-439356
*(24.12.80) *BE-825-123 A23j-03 A23l-01/31*
31.01.75 as 012646 (5pp9)
In a prod. simulating bacon and having alternate layers of 'lean meat' and 'fat', the 'lean' layers are derived from a mixt. having initial compsn. 10-40% vegetable protein fibres; 5-20% ovalbumin; 5-20 tapioca starch; 30-60% water; 3-20% vegetable oil; 0.1-1.5% gum 2-15% isolated vegetable proteins; 0.05-0.5% dextrose; 0.005-0.05% food dyes and 5-20 aromatising agents and condiments; the 'fat' layers are derived from a mixt. having initial compsn. 0.5% vegetable protein fibres, 5-20% ovalbumin; 3-20% tapioca starch; 30-60% water; 10-40% vegetable oil; 1.1-1.5% vegetable hum; 2-15% isolated vegetable proteins; 4-15% Na caseinate; 0.05-0.5% dextrose and 5-20% aromatising agents and condiments; all amts. being by wt. Prod. has the texture of real bacon. (J50107164).

TAKE ★ D13 05035 D/04 ★J8 0051-534
Layer dessert prodn. - by emulsifying polysaccharide-contg. jelly with partially decomposed vegetable protein, adding oil or fat at high temp. and standing
TAKEDA CHEMICAL IND KK 04.12.72-JP-121350
(24.12.80) A23l-01/04
04.12.72 as 121350 (13pp22)
Jelly material contg. polysaccharide is emulsified to give foamed material using partially decomposed material of vegetable protein. Oil or fat is added to the resultant at elevated temp., followed by standing. Laminates composed of layer contg. bubbles and layer contg. no bubbles are formed. (J49080275).

GENO D13 12167 U/09 #J8 0051-537
Cold water soluble fumaric or adipic acids - useful in dry beverage mixts
GENERAL FOODS CORP 02.10.68-US-764633 (10.01.73-JP-005349)
*E17 (24.12.80) *US3716-374 + A23l-01/22*
10.01.73 as 005349 (5pp)
Cold water sol. fumaric and/or adipic acid is prepd. by partially coating with an aq. mixture of larch gum and propylene glycol and/or glycerol, milling to a particle size of less than 25 microns, adding a 2-12C hydroxy carboxylic acid (pref. citric acid) and milling to a particle size of less than 25 microns and a moisture content of 1-5 wt.% by acidulent. (J49101572).

UNIL D13 06731 X/04 = J8 0051-538
Flavouring agent for foodstuffs esp. margarine - obtd. by heating prod. with amadori association prods. of 6-deoxyaldohexoses and alpha amino acids
UNILEVER NV 02.07.74-GB-029306
*E13 (24.12.80) *NL7507-862 A23l-01/22 + A23d-05*
01.07.75 as 081361 (8pp)
The flavour of foodstuffs or foodstuff components is provided or modified by heating the prod. under controlled conditions in the presence of an Amadori association product of 6-deoxy-aldohexoses and alpha-amino acids with a m.pt. less than 170 deg.C.
The process is esp. useful for imaparting a creamy, buttery taste with a pleasant note of bread to foodstuffs, including margarine, whereby before use the food is baked or roasted e.g.contg. 1-500 ppm. of the flavouring agent. (J51032767).

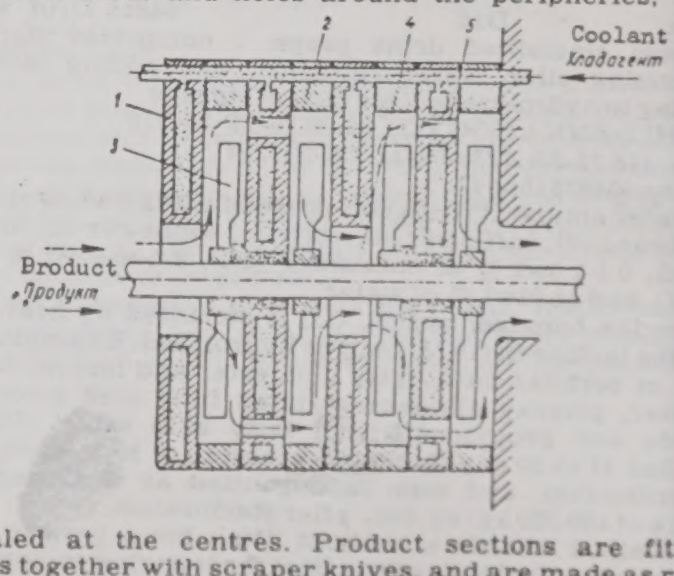
KKIR = D13 00005 A/01 =
Catalyst for hydrogenolysis of dimethyl-dibutyl benzylamine - comprises alloy of nickel, aluminium, c molybdenum and palladium
KAZA KIROV UNIV 21.06.76-SU-374525
*E14 (25.12.80) *BE-855-861 B01j-23/89 C07c-37 C07c-39/*
20.06.77 as 072274 (4pp547)
Catalyst for the hydrogenolysis of N,N-dimethyl-3,5-di-tert hydroxybenzylamino into 2,6-di-tert.butyl-4- methylph comprises an alloy of Ni, and Cr together with 39.0-47.7% Ni Cr, 0.5-4.0%Mo, 0.01-0.20%Pd and Al.
The prod. (I) is useful as a stabiliser in fuels, oils and fo The resence of the Pd improves the catalyst cavity 1.2-1.6 ti obtd. with Ni/Al/Mo and Ni/Al/Mo and Ni/Al/Cr and the quinone impurity is reduced from 1.7- 3.3 times. (J53086692)

INSP- ★ D13 D/04 ★RO
Mushroom paste prepn. from whole mushrooms or was washing, blanching, comminuting, boiling, oil and opt. concentrate addn. and concn.
INSPECT SILVIC CGV(UYBR-) 11.02.76-RO-084774
(D16) (01.10.79) A23l-01/28

BIOT = ★ D13 05145 D/04 ★SU
Bacillus polymyxa 205-57 strain - is producer of milk clotting used in cheese mfg. industry
BIOTECH RES INST 27.12.77-SU-568594
(D16) (15.05.80) A23c-19/02 C12d-13/10 C12k-01/02
27.12.77 as 568594 (3pp932)
Milk clotting enzyme is obtd. by culturing Bacillus polymyx bacterial strain. The new strain is used in cheese mfg. indu is obtd. by mutation of Bacillus polymuxa 705 strain. The lat exposed to UV irradiation of 4000 erg/mm. sq. intensity for 3 after treatment with ethylene-imine (1:5000 concn.).
The mutant strain has high fermentation activity and im storability. It can be cultured in a liquid medium contg. potato starch, yeast lysate, mono- and di-potassium phos magnesium sulphate, calcium carbonate, manganese sulpha ferrous sulphate. Max. cell growth is obtd. after 32 hrs. cultu 26 deg.C. Bul.18/15.5.80.

NEST D13 57892 Y/33 = SU
Cheese spread prodn. from ultrafiltered milk - in which proteins are added to the coagulum to improve textu appearance
SOC PROD NESTLE SA 04.02.76-FR-003119
*(20.05.80) *DE2659-677 A23c-19/02*
04.02.76 as 003119 (4pp)
Cheese is made by ultrafiltering milk, adding rennin acidifying and transferring the mass to a container to congealed prod. from which cheese may be made. Part natural protein in the original milk is replaced by denatured proteins.
The cheese, which has a high protein content, is obtd. in yields and has better texture and appearance than that produ known processes. Bul.18/15.5.80.

UMEA = ★ D13 05182 D/04 ★SU
Cream cooler for butter manufacture - has alternating plate centre and peripheral holes inside which turbulisers mix the p as it is cooled
UKR MEAT DAIRY IND 30.12.77-SU-569269 (30.12.77-SU-5
P13 (28.04.80) A01j-15/12
30.12.77 as 564053 (3pp29)
Cream cooler, used in butter prodn., has alternate cooling having centre holes and holes around the peripheries, the

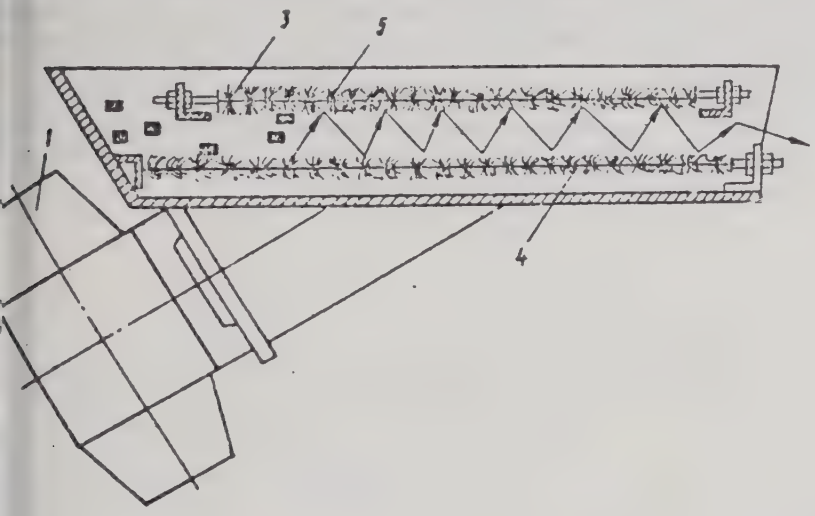


being sealed at the centres. Product sections are fitted turbulisers together with scraper knives, and are made as ring

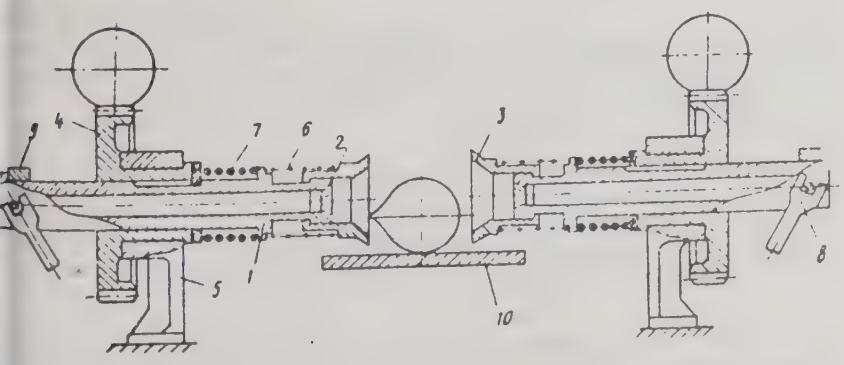
ls for the cooling agent, connected with the help of flexible ts. This design increases productivity and reduces hydraulic nce to the flow of the product. Bul.19/25.5.80.

★ D13 05186 D/04 ★SU-735-233
canning process - by liquefying and spraying into UHF field mplete sterilisation prior to packaging and cooling to room rature
LICH BUTTER CHEES 05.06.78-SU-624875
05.80) A23c-19/02
8 as 624875 (2pp29)
s involving the stages of making the raw material, liquefying ilising, cooling to 70-80 deg.C., packing, sealing, and cooling cks again to 8-10 deg.C. The reliability with which the product ilised is increased, by extruding it in the form of jets 5-10 mm. meter and simultaneously sterilising it in a UHF field in which ensity of the effect varies between 0.5 and 5 kV/cm. The time oduct is in the heating zone is 0.01-1 sec.

= ★ D13 05187 D/04 ★SU-735-234
yor and starch powder coating remover for confectionery - has ing trough and upper and lower sets of brushes, the distance en which can be regulated
AD CONS MACH 25.10.76-SU-414774
05.80) A23c-07/02
6 as 414774 (2pp29)
e for transporting confectionery articles and removing starch r coatings from them has trough with vibrating drive and and lower rows of brushes, mounted parallel to one another nnected to the trough. The efficiency of cleaning is increased.
articles to be cleaned are fed into the space between the upper wer rows of brushes. As they move along the trough under the nce of the vibrating drive they alternately strike against the ets of brushes. This causes the powdered coating to be ed. The speed at which they move is determined by the angle ich the trough slopes, and the direction of the vibrating force. stance between the two sets of brushes is regulated by altering sition of the upper rows.Bul.19/25.5.80.



S= ★ D13 05188 D/04 ★SU-735-235
nted circular root vegetables gripper - has coaxial rods with d conical ends, spring loaded and lever-operated to pick up the ng prod. and hold it
DESS FOOD SUPPLY 03.02.77-SU-452158
8.05.80) A23n-15
.77 as 452158 (2pp29)
pment for gripping oriented circular root vegetables has two capable of axial movement, mounted coaxially, and with flared , the the surfaces being fluted, and of different diameter.Each an be moved axially and reciprocally at the same time, and the d end holders can be made with the same dia. and with smooth nal surfaces.



GOUD- D13 61848 X/33 = US 4242-952
Potato peeling machine - with revolving parallel brushes forming transport channel with lower strand of inclined endless belt (BE300776)
GOUDSCHE MACHINEFAB 03.02.75-NL-001239
*(06.01.81) *DE2602-249 A23n-07/02*
30.01.76 as 653814 (7pp1376)
Fruit and vegetable tuber peeling appts. consists of a tunnel in which the fruit are bounced between the upper and bottom walls. The upper wall consists of the lower run of an endless belt and the lower of spaced parallel transverse rollers. The rollers rotate at a greater speed than the belt moves to bounce the fruit and extract removed skins between the rollers by centrifugal force.
Pref. the tunnel is horizontal. The belt is smooth and may cooperate with a scraper. Potatoes can be dry peeled completely.

LESI D13 71796 B/40 = US 4243-603
Treating fats, esp. palm oil - by interesterification and fractionation, to obtain an oil with high unsaturated content, and solid fats
LESIEUR COTELLE SA 31.05.78-FR-016182
*(D23) (06.01.81) *BE-876-550 C11c-03/02*
31.05.79 as 043935 (9pp954)
Prodn. of an edible oil from natural fatty substances of high unsatd. fatty acid content, comprises (i) inter-esterifying the natural fatty substance to be heated at 20-80 deg.C in the presence of a catalyst and (ii) subjecting the inter-esterified fatty material to at least one fractionating step at -20 to +35 deg.C by means of a solvent in order to produce, in a yield higher than 35%, a fluid fraction comprising unsatd. triglycerides free of trans isomers and of iodine number more than 75, an end-of-clouding pt. lower than 12 deg.C, a content of trisatd. triglycerides less than 0.6%, a content of disatd.-mono-unsatd. triglycerides less than 10%, and a solidification/ liquefaction time at +15 deg.C comparable to that of peanut oil.
The ratio of tocopherols to unsatd. fatty acids is favourable from a nutritional value and is ligher than that of peanut or olive oils.

OCCI ★ D13 05570 D/04 ★US 4243-643
Removing metal impurities from wet process phosphoric acid - by PPTN. with calcium and fluoride contg. solid
OCCIDENTAL PETRO CORP 25.10.78-US-954647 (27.06.77-US-810484)
C04 E36 (06.01.81) C01b-25/18
25.10.78 as 954647 (19pp1251)
Metal ions are removed from impure phosphoric acid by adding a solid precipitant (A) which analyses (dry basis) at least 20 wt.% CaO and at least 19 wt.%F. The resulting ppte. is then filtered off, leaving purified acid. (A) is made by treating a wet-process acid plant pond water with a Ca cpd., and is esp. CaF2 or a sludge with Ca:F mole ratio 1:2, MgO:F wt. ratio 1:23-260 and additionally contg. P, Mg, Fe, Al, Na, silica and S.
The method is simple and provides efficient removal of Mg and Al using a material derived from process waste. The ppte. formed converted to an animal feed by mixing with phosphate rock, water and a sodium source, then calcining to eliminate fluoride. Alternatively, it can be converted to a low-grade fertiliser.

TSUB D13 30918 Y/18 = US 4243-661
Multhiomycin prepn. by culture of Streptomyces 8446-CC1 - with sulphur contg. aminoacid and use as growth promoter for animals, birds, fish, molluscs and crustacea
KUMIAI CHEM IND KK 28.10.75-JP-128910
*B04 C03 (D16) (06.01.81) *BE-847-684 A61k-35*
23.04.79 as 032253 (+28.04.76, 28.10.76, 06.09.77 -US-681198, 736523, 830773) (14pp954)
Method of promoting growth of domestic animals comprises administering to the animal an effective amt. of multhiomycin, pref. in 0.1-500 ppm admixed in the feed or drinking water.
Multhiomycin is an antibiotic obtd. from the mycelium of Streptomyces SP8466-CCI. It is pref. used to promote the growth of chickens, pigs and cows.

UNIL D13 90017 Y/51 = US 4243-684
Cheese by membrane filtration of milk then fermenting concentrate - using microorganism strains giving ropey culture
LEVER BROTHERS CO 18.06.76-GB-025342
*(D16) (06.01.81) *BE-855-640 A23c-19/02*
04.05.78 as 903647 (+16.6.77-US-806964) (3pp936)
Prepn. of soft cheese comprises first subjecting milk and/or by-prod. to a membrane filtration. Concentrate is admixed with a lactic acid bacteria culture (I) and the admixture is fermented until a precheese is formed. Precheese is then converted into a soft cheese.
Improvement is that (I) is a ropy culture having a thread length of at least 5 cm. by the quick pipette test in which a pipette (II) is dipped into a sour milk produced with the ropy culture, sour milk is sucked into (II) and (II) is pulled out from the surface of the sour milk to form the thread between (II) and the surface of the sour milk. Soft cheese is pref. camembert cheese. Prod. has a soft texture.

CHIN D13 04320 Y/03 = US 4243-685
Cultivating yeast for animal consumption - on fermentation medium obtd. by hydrolysing plant waste contg. cellulose and polysaccharide
CHINOIN GYOGYSZER 02.06.75-HU-CI1581
*C03 (D16) (06.01.81) *DE2631-473 A23k-01/14*
28.01.78 as 919982 (5pp936)
Prepn. of fermentation media suitable for producing yeast for animal consumption and/or proteins starting from a vegetable waste material is described.

Process comprises first hydrolysing comminuted vegetable waste (I) contg. polysaccharides with a dilute aq. soln. of sulphuric acid at pH about 1-5 and temp. 80-140 deg.C. Liq. phase is sepd. and its pH adjusted to 3.0-6.0. It is then supplemented with NH4OH or (NH4)2SO4 and potassium dihydrogen phosphate to give a fermentation medium.

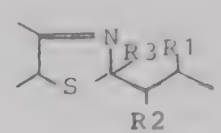
(I) comprises cornstalks, sunflower stalks, leaves, algae or reeds. Solid phase obtd. is boiled with a dilute alkali metal hydroxide base for 5-20 minutes, and this step is repeated. Solid and liq. phases are sepd. and the pH of the sepd. liq. phase adjusted to about 1.5 to give a ppte. contg. protein which is sepd. from the mother liquor. pH of mother liquor is adjusted to 3.0-6.0 and it is supplemented with inorganic ammonium and phosphate cpds. suitable for culturing fungi with simultaneous fermentation.

USDA ★ D13 05589 D/04 ★US 4243-686
Improving the palatability of straw for animal feed - by acid treatment and fermentation with a yeast
US SEC OF AGRICULTURE 30.05.79-US-043975
C03 (06.01.81) A23k-01/22
30.05.79 as 043975 (4pp476)
The palatability, digestibility and protein content of straw is increased by mixing 1 part of straw with 2-4 parts of an aq. soln. contg. 0.1-0.5 N HCl and 0.1-0.5 N H3PO4 at 100-125 deg.C for 30-60 mins., then adding ammonia to make the pH 4.0-4.5, then aerobically fermenting with a microorganism at 25-30 deg. C for 1-7 days, and finally drying the fermented prod. Suitable microorganisms are Pullularia (Aureobasidium)pullulans, Phanerochete crysosporium, Candida utilis and Trichoderma viride.

The treated straw is useful as a feed for ruminants and other animals. The treatment process is simple and does not require elaborate equipment or expensive reagents.

INFL ★ D13 05591 D/04 ★US 4243-688
Compsns. contg. 2-substd.-4,5-di:methyl-delta-3 thiazoline(s) - for increasing sweet melt chocolate and nut-like notes of chocolate foodstuffs
INT FLAVORS & FRAGR INC 05.12.79-US-100535 (07.10.76-US-730536)
E13 (06.01.81) A23l-01/23
05.12.79 as 100535 (+5.3.79-US-017806) (20pp478)
Flavour compsn. for increasing the sweet milk chocolate and nut-like notes of chocolate foodstuffs consists of a 50:50 mixt. of (a) (I; R1 is Me, R2 is R3 is H) and (b) (I; R1 is R2 is H, R3 is Me), together with a mixt. of 2-Me-pyrazine (II), 2,6-di- Me-pyrazine (III), 2,3,5,6-tetra-Me-pyrazine (IV), and 3-Ph-4- pentenal (V).

The compsn. effectively increases the sweet milk choc nut-like notes of e.g. chocolate milk having a bland, th flavour.



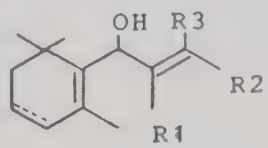
(I)

PROC ★ D13 05594 D/04 ★US
Sodium free compsn. salt substitute - contg. 5'-nucleotide, po phosphate, a sugar, potassium chloride, and aminoacid mixt
PROCTER & GAMBLE CO 18.05.79-US-040353
E13 (E34) (06.01.81) A23l-01/23
18.05.79 as 040353 (6pp478)
Edible, Na-free salt substitute contains (by wt.): (a) 2-6% nucleotide (I) (free acid and/or non-Na salt); (b) 10-40% phosphate: (c) 5-20% of a sugar (II); (d) 15-50% of KCl; and (e) of a mixt. of amino-acids (III) having the flavour-enh characteristics of hydrolysed vegetable protein. Pref. co contain (by wt.) 1-3% (I), 24-28% (III), 812-% (II), 24-30 K phosphate (esp. K2HPO4), and 30-36% KCl and have pH (aq. soln.) 5.5-7.5, esp. 6-7.

The salt substitute contains less than 50% KCl (i.e. is not and has a pleasing salt flavour as well desirable positive characteristics.

INFL ★ D13 05650 D/04 ★US 4
2,6,6-Tri:methyl-cyclohexenyl-butenol derivs. - useful as flav for foodstuffs, medicinals, cosmetics, tobacco etc.
INT FLAVORS & FRAGR INC 15.05.79-US-039361
B05 E17 (D13 D18 D21) (06.01.81) C07c-33/14
15.05.79 as 039361 (37pp1248)
2,6,6-Trimethylcyclohexenylbutenol derivs. of formula (I) ar In (I) one of R1-R3 is Me and the other 2 are H; and the broken an opt. double bond. Proviso is that when R1 is H, the broken a double bond.

(I) impart flavour or aroma to foodstuffs, chewing toothpastes, medicinal prods., smoking tobaccos, per colognes, perfumed articles, e.g. soaps, anionic, non-ioni cationic detergents and fabric softeners.



(I)

See Also

D16 EP--20781	D16 GB 1583304	D16 J5 5149
D16 SU 734263	D16 SU 734277	D21 US 4243
D21 US 4243814	D22 J8 0050674	D23 DS 2929
D23 EP--21100	D23 J5 5149218	D23 J5 5149

D14: FOODSTUFF MACHINERY

WESS ★ D14 04032 D/04 ★DS 3020-563
Butter transport system - including motorised screw conveyor and gear pump, with control of conveyor speed as function of pump delivery
WESTFALIA SEPARATOR AG 30.05.80-DE-020563
T06 X25 P13 (15.01.81) A01j-21/02
30.05.80 as 020563 (6pp39)
The transport system for feeding a butter shaping and packaging machine includes a motorised screw conveyor and a motorised gear pump. Its control is based on separate control circuits for conveyor and pump. The conveyor speed is controlled as a function of the instantanious pump delivery. The pump is controlled as a function of the output of the shaping machine or of the filling of the balance cylinder.

This eliminates weight fluctuations in the finished packs and negative mechanical stresses which may effect the structure and quality of the butter.(DS)

QPPP ★ D14 04975 D/04 ★J8 0050-671
Food sterilisation under high pressure - by sealing in polyethylene vessel, placing in container of material of high thermal conductivity coated with PTFE resin and sterilising
Q.P. CORP 22.05.71-JP-034859
A92 (A82) (19.12.80) A23l-03
22.05.71 as 034859 (2pp22)
Foodstuff is sealed into polyethylene vessel. Vessel is pla container made of material of high tal conductivity whose surface is coated with PTFE resin, followed by sterilisation pressure. (J48001148)

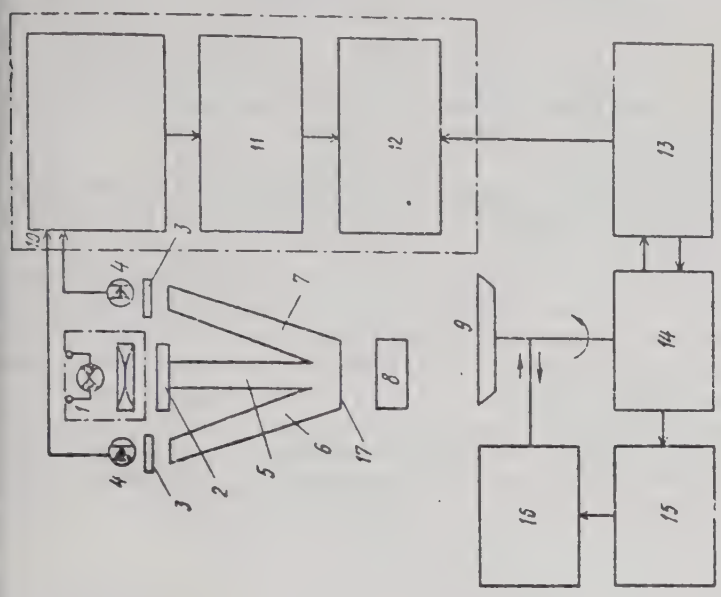
ASAH ★ D14 05040 D/04 ★J8 0
Osmotic liq. separator - comprising a bundle of hollow fibre housed in cylindrical casing having feed pipe on outside wall
ASAHI CHEMICAL IND KK 23.01.74-JP-009235
A31 J01 (25.12.80) B01d-13
23.01.74 as 009235 (3pp26)
A device for sepg. a liq. such as milk and latex, comprises a b of hollow fibre yarns housed in a cylindrical casing having a li pipe mounted on the casing's outside wall so as to direct its op in the tangential direction of the casing. (J50103482)

NAGA/ ★ D14 05046 D/04 ★J8 0
Slurry filtering device - has endless filtering belt of porous carrying slurry to rolls for squeezing
NAGASAWA T 22.10.76-JP-126262
P71 (25.12.80) B01d-33/04 B30b-09/20
22.10.76 as 126262 (6pp26)
Device for continuously filtering a slurry of food comprises rol rolls disposed in a housing, and an endless filtering belt m

lates for carrying the slurry in to an arrangement of rolls to it, resulting in formation of filter cake, which is scraped off. 76).

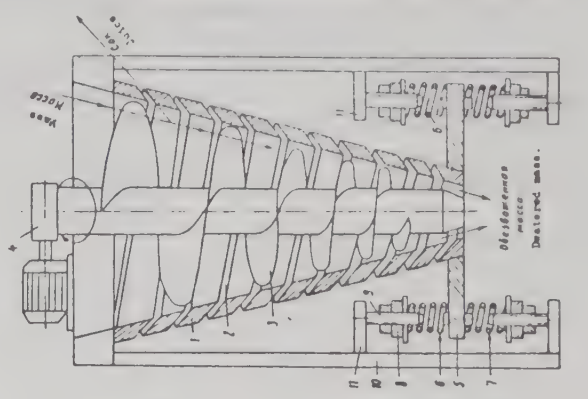
★ D14 D/04 ★RO --68-232
ous gravimetric grader for foodstuffs - has series of feed, ing and discharge belts
T MASINI INSTAL 16.09.76-RO-087543
0.79) A21c-05/08

★ D14 05172 D/04 ★SU -734-559
uff, e.g. tea, quality control appts. - using light pipe with one ecting lamp luminous flux onto prod. and two parts directing d light onto photocells
RKEVICH I D 06.12.77-SU-551156
(18.05.80) G01n-33/02
as 551156 (3pp840)
appts. for estimating the quality of foodstuffs, pref. tea, s a plate for the investigated produce and an optical system. eater accuracy, a control is introduced and the optical system d with a light pipe with one part to direct lamp luminous flux e plate, and two parts to direct reflected light to photo-cells. ppts. is useful also in assessing the impurity content of e of homogeneous consistency. Accuracy is increased by r sensitivity with reduced diffusion. Bul.18/15.5.80.

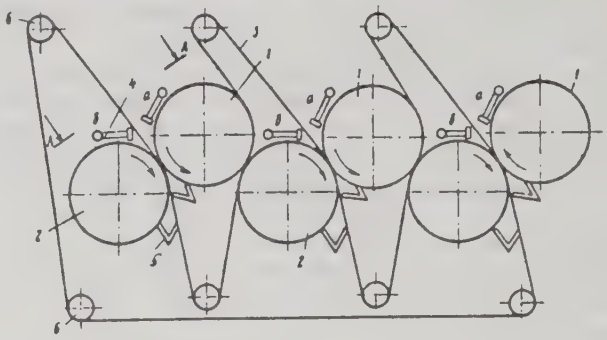


= ★ D14 05279 D/04 ★SU -735-439
terer for green vegetable fodder etc. - has conical body made spring with turns of rhomboidal section and screw to apply ure downwards to force juice through body
BE AGRIC INST RES 05.07.78-SU-637194
1 (10.06.80) A23n-17 B30b-09/14
78 as 637194 (3pp29)

Green vegetable fodder dewaterer(which can also be used for other(food, wine-making)products requiring removal of liquid), has screw inside a vertical chamber with its own rotating drive. The spaces between the turns vary in volume. To intensify the process and improve prod. quality., the chamber is made as a conical spring, the turns of which have a rhomboidal cross- section.The lower turns also have a smaller external dia. The flange connected to the bottom turns can be moved along the chamber axis, using springs on both sides which can be positionally regulated.Bul.19/25.5.80.



KDPO = ★ D14 05280 D/04 ★SU -735-440
Fruit and berry juice extraction press - has additional pressing rollers and impermeable belt passing round main and additional rollers
KRASD POLY 15.06.78-SU-628880
P71 (10.06.80) B30b-09/24
15.06.78 as 628880 (2pp822)
The press comprises pressing rollers, an endless impermeable belt passing between them, juice collectors, scrapers and additional rollers. The belt is mounted so that it passes around the main and additional rollers, and the juice collectors are mounted between the belt and each of the pressing rollers, and consist of reticular filters.
The press is useful in expressing the liquid phase from various food products, especially fruits and Bul.19/25.5.80.



D15: WATER TREATMENT

3/ ★ D15 03730 D/04 ★BE -884-040
removing from well water - with filtration and storage vessels lower bringing oxygen into intimate contact
ANSSENS J 27.06.80-BE-884040
).12.80) B01d C02f
80 as 884040 (10pp1014)
ering container has an upper zone fitted with means for ing the water admitted into contact with a large vol. of oxygen, at the iron in soln. can be removed. A storage container cted to the filtration container, has a level detector which ols the feed pump delivery of raw water into the filtration iner. Beneath the two containers there is a lead with a valve. s extended from the filtering container and is connected to the ery of a pump, the suction side of which joins the storage iner. A second valve is fitted in this extended lead. A mass of tion material is provided in the first container and a drain is cted by a gauze.
e inlet chamber has the form of a closed funnel and the delivery has a number of aerating holes for the water which is to be rid of on. Under the inlet a baffle plate is fitted and below this there is nection from a fan blowing in oxygen.
remove the iron from water and esp. from well water in which present in large amts., so that it does not block the pipes and e brown stains in the toilets, etc. The arrangement works ently and with maximal security.

BLAT/ ★ D15 03776 D/04 ★CH -620-661
Waste water conversion to drinking water - by flocculation, sedimentation, filtration and ozone admixture
BLATTER M 15.04.77-CH-004729
(15.12.80) C02f-09
15.04.77 as 004729 (5pp39)
Waste water, e.g. from a group of hotels or a row of houses without any industrial wastes, is converted to drinking water by adding a flocculant before entry into a storage tank, by intensive mixing inside it and by breaking up the detergents. The froth is removed and the solid particles are allowed to settle. After filtering the water is gasified by a conc. ozone mixt. and passed into a relief tank for drinking water where further ozone admixt. keeps it in circulation.
This removes all sediment from the drinking water; the ozone concn. keeps unwanted bacteria etc. at bay.

MASW ★ D15 03919 D/04 ★DE 2928-525
Water aeration tower - with manual or automatic flushing circuit by fresh water or washing solution
MASCH BUCKAU WOLF 14.07.79-DE-928525
(15.01.81) C02f-01/74
14.07.79 as 928525 (16pp39)
Tower contg. one or more layers of contact packing for the aeration of water receives the raw water through a distributor chamber on top and collects the treated water in a chamber at the bottom. A separate circuit in the same direction can flush the packings clear of

dirt either by fresh water or by a washing soln.

The change-over from aeration to flushing can be done manually or automatically as a function of the degree neutralisation by oxidation of the discharged water. This solves the problem of clogging of the contact packings.

CIBA ★ D15 03983 D/04 ★DE 3023-788
Cationic adsorbent for removing acid dyes etc. from waste water - prepd. from aminoplast precondensate and amino amide cpd.
CIBA GEIGY AG 04.02.80-CH-000869 (28.06.79-CH-006036)
A91 F06 J01 (A21) (15.01.81) B01j-19/04
25.06.80 as 023788 (22pp1251)
A cationic adsorbant (A) made by reacting a cpd. (I) having at least one amino gp. and at least one opt. methylolated carbonamide gp. with an amine-free aminoplant precondensate (ii) are new. (II) is esp. dimethylolurea or tris- to hexa-methyloimelamine. Pref. (I) have formula

R4R5N(Q2-N(R6))m-1 Q3-CONXY (Ia)

(where m is 1 or 2; R4, R5 and R6 are H, lower alkyl, benzyl or Q3-CONXY, or R4 and R5 together complete a 5 or 6-membered heterocycle. Where m is 2, R5 and R6 together with -NQ2N- can form piperazina Q2 and Q3 are each 1-3C alkylene; X is H or hydroxymethyl; Y is H, lower alkyl or hydroxymethyl).

(A) are useful for removing anionic materials from aq. solns., esp. waste waters, and are more effective than e.g. charcoal, with capacities around 50 g anionic material per 100 g. They are used to remove dyes, brighteners, dyeing and textile auxiliaries, surfactants and tanning agents (and also effect partial removal of nonionic surfactants and auxiliaries, and phosphates,) allowing reuse of the water.

BOHN/ D15 39027 B/21 = DS 2803-759
Installation for treating water by activated sludge process - with two separate activation basins with intermediate decantation
BOHNKE B 28.01.78-DE-803759
*(15.01.81) *BE-873-616 + C02f-03/12*
28.01.78 as 803759 Add to 2857578 (6pp068)
A two-stage appts. for treating waste water by the activated sludge process comprises a 1st stage activation tank, an intermediate clarification appts., a 2nd stage activation tank, a post clarification appts. and opt. a further sludge process appts.

All the waste water is to the 1st stage activation tank which has a vol. capacity of about 10 kg BSB5/cubic m. and a sludge capacity of at least 2 kg BSB5/kg TSd. The sludge is aerated with surrounding air to remove C- and N-cpds. which biodegrade with relative difficulty by adsorption, self-filtration and coagulation. The resulting biomass is led to the intermediate clarification appts. from which sludge is recycled or led to appts. A and the waste water is led to the 2nd stage activiation tank, the load being less than for stage 1. The 2nd rank is arranged as an oxygen activation tank to biodegrade remaining C- and N-cpds.

The loads are arranged so that the ammonia from the 2nd stage extensively neutrolises the excess carbonic acid.(DS)

BORM/ ★ D15 04026 D/04 ★DS 2943-742
Run/off duct cleaning plant - with separately adjustable motorised brushes on vertically movable column
BORMET H 30.10.79-DE-943742
(15.01.81) B01d-21/24 C02f-03
30.10.79 as 943742 (6pp39)
Motorised brushes to keep the sides and bottom of run-off ducts in sewage plant, esp. in biological reclarification basins, clear of algae growth, are attached to separately adjustable brush carrier arms. They are attached to a column which is attached by a guide to the basin raking arm with an adjustment in vertical height but without freedom to turn. A weighted lever compensates part of the weight of column and brushes. The result is a lightweight appliance which is simple to mfr. and to operate. The force exerted by the rollers on the duct floor has been reduced to a minimum. (DS)

SCHU/ ★ D13 04031 D/04 ★DS 3016-163
Cleaning cream curds vat - by circulating caustic soda solution through spray jets
SCHULENBURG F 26.04.80-DE-016163
P13 (15.01.81) A01j-25/04
26.04.80 as 016163 (4pp39)
Conventional vats for the prepn. of cream curds, consisting of an inner vat, a vertically movable perforated vat and an outer vat, are difficult to clean in accordance with hygiene regulations and require 2500 litres of caustic soda soln. at a time.

This can be reduced to a fraction if a square tube is welded to the top of the inner vat, to one side of the perforated wall and to the inside of the outer vat. A circulating pump is used to pass the soln. through the square tube.(DS)

KANF D15 20213 C/11 =
Tubular membrane separator - having flared end connector tube and gripped by detachable coupling
KANEGAFUCHI CHEM KK 28.07.78-JP-092699
*J01 (07.01.81) *WP8000-309 B01d-13 B01d-31 + C02f-01/*
26.07.79 as 900884 E(DE FR GB)
(WP8000309)

FARH D15 88489 C/50 = E
Waste-water sludge dewatering - using acidic gypsum w phosphoric acid prodn. as filter aid
HOECHST AG (KNAP) 23.05.79-DE-920914
*A97 C04 E36 (07.01.81) *DE2920-914 C02f-11/12*
14.04.80 as 101982 (10pp280) (G) FR1560439 US3226319 US398
BE CH DE FR GB IT LI NL)
When using calcium sulphate for dewatering waste-wate there is used an acidic waste gypsum as obtd. from dig phosphate ores in the prodn. of phosphoric acid..

The process utilises the otherwise useless waste gypsu residue produced is suitable for dumping or, with the further fertiliser salts, recycling as a fertiliser. More tha the water present in the waste water sludge can be remo water recovered is sufficiently pure to be returned to cir release of gaseous ammonia does not take place.

FARH ★ D15 04198 D/04 ★E
sludge-water mixt. - with addn. of substance with high surface to improve organic impurity degradation
HOECHST AG 27.06.79-DE-925895
(07.01.81) C02f-03/12
21.06.80 as 103491 (6pp200) (G) US2341239 GB-639550 C FR2210601 DE2261067 FR2236830 E(AT BE CH DE FR GB I SE)
A sludge-water mixt. to be purified by gasification is admi substances (A) having surfaces of 100-1500 sq.m./g. in amt 1000 g per cu.m. of waste water. The process comprises cont charging a 10-30 m. high activating chamber with waste activated sludge and air, and discharging an equiv. qua sludge-water mixt..

(A) addn. improves the biological degradation of intermediates, e.g. phenols, aromatics, chlorinated and hydrocarbons. Waste water BOD and COD are highly r Space capacity of the reactor is increased.

ANVR ★ D15 04238 D/04 ★FR
Distn. plant using solar powered evaporator - under tran condensing cover automatically cleaned to improve ra transmission, for sea water desalination etc.
AGENCE NAT VALORISATION 30.03.79-FR-008584
J01 (28.11.80) B01d-01 B01d-05 C02f-01/04
30.03.79 as 008584 (13pp448)
Distn. plant employs a powered evaporator to vaporise beneath a transparent cover on which vapour condense condensate is collected, usually by gravity into a drainage The improvement is that a moving element is used to cle condensing surface of the cover, continuously or intermittent push the condensate into the drainage gutter.

The moving element can be a manually operated or power wiper, similar to an automobile windscreen wiper. Alternativ moving element can be a fluid, e.g. the droplets of condensate blown clear by compressed air or washed away by a liq. such collected condensate.

Used for purifcn. of solns. etc. by distillation, part desalination of sea water etc. or provide drinking water. By cl the condensing surface the tiny droplets of condensate are no allowed to impede and reflect solar radiation. The energy is u more efficiently in heating the liq. to be distilled. A distillatio with cleaning element has a production capacity about 60% than the same plant without cleaning element.

SNAM D15 18159 A/10 = GB 1
Microbiological purification of water contaminated with min - by adding a mixt. of a phosphorus source (esp. lecithin) nitrogen source in assimilable form BE 1.3.78)
SNAMPROGETTI SPA 08.06.77-IT-024495 (01.09.76-IT-026
*H03 (21.01.81) *DE2739-428 + C02f-03/02*
11.08.77 as 033805 (11pp918)
Pollution of water contg. microbes capable of metab hYdrocarbons by hydrocarbonaceous material is reduc contacting the water with a cpd. contg. phosphorous (I) and a cpd. (II) which is poorly soluble in water. (II) contains nitrog form easily assimilable by the microbes.

(I) is one or more of lecithin and other synthetic or na occurring phosphatides and (II) is (i) one or more of hydroca amides, allophanates, polyamines, acyl ureas and est hydantoic and allantoic acids or (ii) a mixt. of (i) and at lea

deriv. of an aldehyde.
od is esp. useful for reducing oil pollution on fresh or sea

D15 18159 A/10 = GB 1582-966
ological purification of water contaminated with mineral oil
ding a mixt. of a phosphorus source (esp. lecithin) and a
n source in assimilable form BE 1.3.78)
MPROGETTI SPA 08.06.77-IT-024495 (01.09.76-IT-026751)
*(21.01.81) *DE2739-428 C02f-03/02*
as 001890 /79Div.ex 1582965 (9pp918)
on caused by hydrocarbon contg. material on water contg.
es capable of metabolising hydrocarbons is reduced
ing the polluted water with a cpd. contg. phosphones and a
water soluble cpd. (II). Cpd. (II) contains nitrogen in a form
assimible by the microbes and is at least one of the gp.
ing of hydantoins, amides, allophanates, polyamines, acyl
nd esters of hydantoic and allantoic acid. Pref. freeze dried
es capable of metabolising hydrocarbons are also introduced
into the water.
od is esp. useful for reducing oil pollution by e.g. crude oil or a
um prod. on fresh or sea water.

D15 82920 Y/47 = GB 1583-074
ng waste water, esp. from cess pits, with flocculants - then
filtration through textile to reduce solids and BOD
ECHST AG 28.08.76-DE-638910 (15.05.76-DE-621698)
*(21.01.81) *BE-854-634 + C02f-09*
7 as 020294 (6pp1376)
lal solids are removed from waste water by flocculation and
on through fabric. The solids trapped on the filter form a
ilter layer for further batches.
. the fabric is of polyester or polyamide and is formed into a
at least 60 l capacity. The filtered solids are pref. removed
hydrated in a vertically operating drainage pass or a rotary
m filter. The water passing the filter is pref. treated in a
ical trickling filter.
te water can be purified inexpensively.

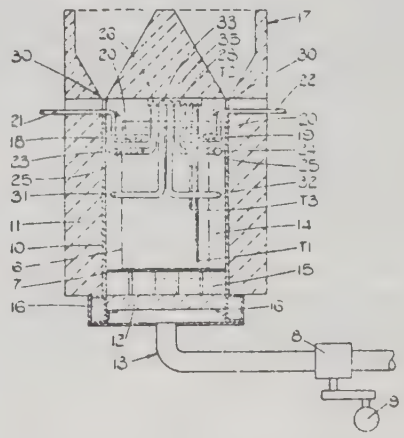
/ D15 11035 C/06 = GB 1583-101
volume liquid distillation - using vapour compression driven by
ary gas powered turbine; used esp. for water purificn.
TZ J 18.04.77-US-787832 (28.04.76-US-681290)
*(21.01.81) *US4186-058 B01d-01/28*
7 as 017494 (+22.2.77-US769291) (65pp1358)
pure liq., e.g. water, is distilled by evaporating, compressing
.pour. passing through an expansion engine to produce shaft
y and cool the vapour, adding make-up work to the engine for
fference between work done in expanding, compressing the
ded vapour, and cooling in heat-transfer against impure liq.
second vapour at least partially condenses and evaporates liq.
e starting vapour of the cycle. The first vapour is pref. at 0.006-
.tm. and 33-211 deg.F. The shaft energy is pref. used to
ress the vapour. The method is suitable for large-scale
cation and can also provide steam. The appts. is claimed.

★ D15 04279 D/04 ★GB 1583-104
oving quality of impure water - by treating with a brominating
and slightly soluble solid silver cpd.
CC LTD 04.05.77-GB-018683
7 *(21.01.81) C02f-01/50*
'8 as ------ (3pp 558)
uality of impure water is improved by treating it first with a
inating agent and then with at least one solid cpd of Ag of slight
ility. The use of Br2 or a hypobromite as the brominating agent
g oxide, opt. together with Ag chloride or carbonate or metallic
claimed.
process is useful for the treatment of water contg. ammonia
r soluble organic cpds, e.g. effluent from a conventional
e treatment. A large proportion of the Ag and Br can be
ered and used again.

D15 51927 A/29 = GB 1583-235
soluble pearl polymer prodn. - by polymerising aq. soln. of
acrylic cpd. in dispersion medium using cellulose ester or
as stabiliser
ITSUBISHI CHEM IND KK (KYOY) 05.01.77-JP-000289
*1 C03 (A14) (21.01.81) *DE2800-520 C08f-20/34*
78 as 000250 (26pp982)
of a water-soluble bead polymer comprises dispersing drops of
.. soln. of water-soluble vinyl monomer in a dispersing medium
e presence of a dispersion stabiliser, and polymerising the
mer.
monomer is selected from (a) a cpd. of formula CH2:CR1-C(O)-
N(+)R2R3R4X(-) (I) and (b) a mixt. of (I) and a water-soluble
ymerisable monomer. A cellulose ester or ether insol. in water
soluble in the dispersing medium is used as the dispersion
iser. In (I), R1 is H or CH3; R2 and R3 are opt. branched 1-4C
; R4 is H, opt. branched 1-8C alkyl, hydroxy 1-4C alkyl or benzyl;
Y is 2-4C (hydroxy) alkylene; and X is an anion.
Bead polymers of uniform particle size and good handling characteristics are obtd. simply.

WICK- ★ D15 04304 D/04 ★GB 2051-598
Dewatering appts. for sludges - has pair of filter belts following curved path of reducing radius
WICKHAM D & CO LTD 17.05.79-GB-017277
A88 J01 (21.01.81) B01d-33/04
17.05.79 as 017277 (5pp67)
Appts. for dewatering fine fragile sludges comprises a pair of filter belts between which the sludge is carried. The belts follow a curved path of reducing radius pref defined by a portion of a cornu spiral, which subjects the sludge to a gradual, and continual increase in pressure.
Pref the belt is constrained to its path by a guide plate which is lubricated e.g. by PTFE.
Appts is used for dewatering fine fragile sludges which, even when flocculated with chemical conditioner, do not form a sufficiently strong bridge of flocs over filter apertures so that when they are subjected to a sudden pressure increase the flocs break down and either pass through the apertures or block them.

APOL- ★ D15 04306 D/04 ★GB 2051-601
Fluidised bed for heat treating articles - regulates supply of fluidising gas to bed according to bed temp.
APOLLO HEAT LTD 29.05.80-GB-017601 (08.06.79-GB-019979)
A35 J04 M24 (T06) (21.01.81) B01j-08/24
29.05.80 as 017601 (8pp67)
Fluidised bed comprises a container having a porous base holding a mass of refractory particles which are heated in the container. A fluidising gas is supplied to the underside of the porous base for flow through the particles via a conduit having an adjustable valve. A pair of temp. transducers located at vertically spaced posns. above the porous base are connected together to provide a signal dependent on the temp. difference between the posns. A power-actuated mechanism receives the signal and adjusts the valves according to the signal received.
Used in removing paint or plastics from metal components, in incinerating sewage and in heat treatment processes, e.g. carburising and annealing.



BRTO ★ D15 04332 D/04 ★GB 2051-769
Continuous aerobic sewage digestion at elevated temp. - with heat exchange preheating of inlet sewage
BOC LTD 09.05.80-GB-015396 (11.05.79-GB-016371)
(21.01.81) C02f-11/02
09.05.80 as 015396 (8pp 295)
Sewage passes along a conduit with plug flow and takes 1 day to reach a digestion region. In this region oxygen is bubbled through the sewage to raise the temp to 60 degC. After digestion the sewage leaves via an outlet conduit which runs adjacent the inlet conduit and preheats the inlet sewage by heat-exchange.
The complete process takes 5 days from sewage entry to exit and pref the sewage takes 1 day to pass through the outlet conduit. Typically the digester comprises a spiral conduit with a bypass port which provides for 60% recycling of partially digested sewage.
The appts digests sewage by a continuous process.

FRAU ★ D15 04350 D/04 ★GB 2051-842
Silicic acid hetero-poly condensates - useful in porous membranes and adsorbents, mfd. by hydrolysis and catalytic polycondensation of silicic acid derivs. and substd. silane(s)
FRAUNHOFER-GES FORD ANGE 27.06.79-DE-925969
A88 J01 (A26) (21.01.81) C08g-77/06
29.05.80 as 017589 (7pp513)
Porous membrane or adsorbent comprising a silicic acid heteropolycondensate is made by hydrolysis and condensn. of a reaction mixt. contg. (a) at least one hydrolysable silicic acid deriv. SiR4 in which R is H, halogen or -NR'2;R' is H or alkyl; and not all the R gps. are H atoms at the same time; and (b) at least one substd. silane SiRnR''(4-n) where R is as above; R'' is alkyl, alkenyl, aryl or

aralkyl- and n is 1, 2 or 3. Hydrolysis and condensn. is carried out in the presence of at least the stoichiometric amt. of water required for hydrolysis and 3-75 wt percent (w r.t reaction mixt.) of a condensn. catalyst. The ratio of reactants is chosen to give a prod. (calculated at oxide units) contg. 35-90 percent (a) and 10-50 percent (b) by wt.

The prods. are stable in use and have a pore structure which includes fine and coarse pores. Prods. in the form of membranes can be made with an asymmetrical structure of required. The prods. are useful eg for treating effluent waters, and have good stability to temp., pressure, solvents and change in pore size.

SHIG/ ★ D15 04454 D/04 ★J5 5147-104
Extracting metal salt or colloid from aq. phase - using neutral organo-phosphorus cpd., alpha,beta di:ketone or polyether cpd. in presence of diluent
SHIGETOMI Y 04.05.79-JP-054871
J01 (15.11.80) B01d-11/04
04.05.79 as 054871 (5pp51)
Method comprises extracting metal salt or a colloidal particle from aq. phase with an extracting agent of a neutral organo phosphorus compound, alpha, beta-diketone compound, or a polyether compound in the presence of a diluent. Mixture of the extracting agent and diluting agent is liquid in the extracting process and it is a solid in the sepg. process. The extracting agent is esp. tri-n-octylphosphine oxide (TOPO), tributyl phosphate (TBP), or tri-n-butylphosphine oxide. The diluting agent is naphthalene, benzophenone, or P-dichloro-benzene.

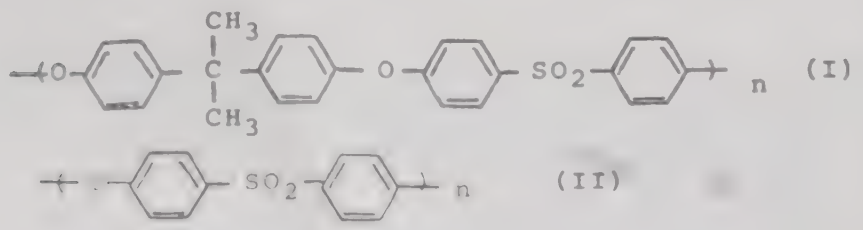
In an example 0-200 mg of TOPO and 0-1.0 g of naphthalene were mixed with 25 ml of an aq. solution contg. 10 ppm of uranium. The resulting mixed solution was cooled, and filtered to separate a solid phase from a liquid phase containing no uranium. Uranium was extracted from the liquid phase to the solid phase.

HITA ★ D15 04456 D/04 ★J5 5147-107
Cleaning device for membrane separator - using soft washing balls and having ball catchers inserted in return line from separator to ball collector
HITACHI KK 00.00.80-JP-022738
J01 (15.11.80) B01d-13
15.10.76 as 022738 (4pp26)
A device for continuously cleaning a membrane of a tubular membrane type separator for purifying raw liq. such as dirty water etc. is claimed. The device uses washing soft balls, which flow into the membrane separator to rub the surface of the membrane, from a ball collector and return to it. The object is to quickly clean the membrane even in a long ball circulation line.

Two or more ball catchers are inserted into a return line from the separator to the ball collector. Each catcher has a turnable net for catching the ball without storing the outlet liq. drained from the separator and for feeding the ball to the collector when the net is turned. Valves are inserted at the inlet and outlet of each catcher and switched synchronously with valves of the collector so that the collector feeds continuously one ball, while another ball is not yet returned.

ASAH ★ D15 04457 D/04 ★J5 5147-108
Increasing the pore size of polysulphone semipermeable membrane - by treating with alcohol e.g. methanol or its aq. soln.
ASAHI CHEMICAL IND KK 08.05.79-JP-055236
A88 J01 (A26) (15.11.80) B01d-13/04 C08j-09/36
08.05.79 as 055236 (3pp51)
The method comprises contacting the semipermeable membrane with alcohol or its aq. soln., where the alcohol is methanol, ethanol, or isopropanol. The polymer is of formula (I) or (II).

In an example 25 pts. of a polysulphone resin was dissolved in 100 pts. of N,N-dimethyl acetoamide to obtain a polysulphone soln. The soln. was introduced through a ring type orifice nozzle into water of a coagulation bath to obtain a hollow fibre type semipermeable membrane. The membrane was immersed in ethanol of 80 deg.C for 5 hours to obtain a semipermeable membrane of 81 angstrom average pore size. A water permeating rate of the membrane is 3.5 cu.m/sq.m day under a pressure of 1 kg/sq.cm.



MITO ★ D15 04458 D/04 ★
Sand filter for treating dirty or waste water - has rot connected to lower end of column to drain dirty sand into give continuous operation
MITSUBISHI HEAVY IND KK 04.05.79-JP-054094
(15.11.80) B01d-23/16
04.05.79 as 054094 (3pp26)
The device comprises a vertical column contg. a filtering raw water feed pipe opened in a water disperser plate, ar drain pipe connected to an upper section of the column. The to continuously wash dirty sand taken out from the columr for continuous operation with single filtering device.

A rotary valve is connected to a lower end opening of the c drain the dirty sand into a sand washer, to which a sand co connected to feed the washed sand into a hopper with rota mounted on the upper face of the column.

HITA ★ D15 04459 D/04 ★J
Appts. for filtering waste water - includes filtering medium supported by fixed and elastic ports to enable redn. of resistance
HITACHI KK 00.00.79-JP-034062
(15.11.80) B01d-29/14
06.12.76 as 034062 /79 (5pp26)
Appts. for filtering a water such as dirty water is claim appts.comprises a vertical tank having a raw water fe filtering chamber formed in te tank and contg. a filtering and raw water chamber formed in the tank and around the chamber. The object is to reduce the filtering resistanc medium due to deposition of suspended solids in the water.

The filtering medium is supported by fixed supports an supports mounted on the fixed support. Each elastic su made hollow filled with a compressive fluid. Hard sup ort pl interposed between the filtering medium and elastic support redn.of the resistance the elastic supports are deformed.

PINO/ ★ D15 04460 D/04 ★J5
Internal fluidal system for filtering appts. - includes tan filter cartridges, sludge cylinder and alkaline agent
PINONEN P 07.05.79-JP-054810
J01 (15.11.80) B01d-29/24
07.05.79 as 054810 (4pp15)
The system comprises a number of filtering cartridges filtering agent which are fitted inside a pressure acting ta alkaline agent is filled around a peripheral circumference o cylinder fitted at bottom lattice of the tank. Piping having valves is fitted inside the tank.

The system is used for removing iron components, ca components, manganese components and other impurities a undesirable taste of drinking water.

MITQ ★ D15 04461 D/04 ★J5
Appts. for concentrating sludge or suspension - comprises contg. tubular rotary mesh screen
MITSUBISHI ELECTRIC CORP 08.05.79-JP-055910
(15.11.80) B01d-29/30
08.05.79 as 055910 (3pp26)
Appts. comprises a liq. tank and tubular rotary screen dis the tank. The object is to increase the concn. rate and degr suspension.

The screen has a mesh sufficiently small as not to allow su substances to pass through and is rotatable in the liq. A dra is connected to the interior of the screen to suck clean water, a drain pipe. For rotating the screen a motor is connected t screen is made of a wire net, filter cloth stretched across a etc. The drain pipe is inserted into a central area of the scree

MITQ ★ D15 04462 D/04 ★J5
Concentrator for suspension or sludge - includes tubula screen immersed in liq.
MITSUBISHI ELECTRIC CORP 08.05.79-JP-055911
(15.11.80) B01d-29/30
08.05.79 as 055911 (3pp26)
Device for concentrating a suspension or sludge comp vertical tank for reserving the raw suspension such as dirt contg. fine suspended substances, and a rotary screen r disposed in the tank.

Improvement is that the rotary screen has a tubular shap immersed in the liq. It is rotated by a motor. The mesh of th is small enough so as not to allow the fine suspended subst pass through. An evacuator is connected to the interior of th through a drain pipe inserted liq.-tightly into the screen to o sepd. clean liq. (water).

Sludge is quickly sepd. with a compact appts.

D15 04463 D/04 ★J5 5147-115
lewatering device - including sensor for detecting water of sludge cafe
UBISHI ELECTRIC CORP 08.05.79-JP-055909
.80) B01d-33/04 C02f-11/12
as 055909 (4pp26)
or dewatering sludge cake produced in a water purification mprises an endless belt for conveying wet sludge cake into a ssion zone formed by pressing belts supported by press and lers, and a vacuum absorption mask backed at the endless

content of the sludge cake is maintained constant tive of the kind and shape of sludge cake. Improvement is in nsor for detecting the water content of the cake is located on less belt to control the pressing belts or vacuum absorption r dewatering the cake on the endless belt.

★ D15 04465 D/04 ★J5 5147-121
for producing pure water from gas - e.g. desert atmos., s controller connected to electromagnetic valves as gas inlet let
SUBISHI ELECTRIC CORP 08.05.79-JP-055912
(15.11.80) B01d-53/04 E03b-03/28
as 055912 (6pp26)
for producing pure water from a gas e.g. the atmos. in a comprises a tank contg. an adsorbent zone for adsorbing the content from the gas, a heater for heating the adsorbent to the water content, and a condenser for the desorbed water
ovement is that a controller is connected to both valves so ey are switched simultaneously to repeat the adsorbing and ing operations in the tank, and each valve is electromagnetic

ching of timing deviations between valves inserted at the gas id gas outlet of the tank is avoided.

★ D15 04466 D/04 ★J5 5147-122
for producing water from gas - e.g. atmos. in desert, has U- l pressure difference meter coupled with light-emitting nt and light receptor
TSUBISHI ELECTRIC CORP 08.05.79-JP-055913
(15.11.80) B01d-53/04 E03b-03/28
9 as 055913 (5pp26)
for producing water from the water content of a gas such as mos. in a desert comprises a tank contg. a water adsorbent hrough which the gas flows, a heater for heating the adsorbent esorbing tbe water content, and a condenser for condensing it. rovement is in tbat a U-shaped pressure difference meter for ring the pressure difference between botb sides of the zone is d with a light-emitting element and light receptor facing this nt to detect the motion of the zone caused by the clogging.

★ D15 04468 D/04 ★J5 5147-124
. for producing water from gas - e.g. atmos. in desert, includes oling system for hot, condensed water
TSUBISHI ELECTRIC CORP 07.05.79-JP-056737
2 (15.11.80) B01d-53/04 E03b-03/28
79 as 056737 (5pp26)
.. for producing water from the water content of a gas such as mos. in a desert district comprises a tank contg. an adsorbent or adsorbing the water content, a heater, a condenser for the bed water, and a water reservoir for receiving the condensed from the condenser.
rovement is that vertical pipes pass through a bottom plate n upper plate of the reservoir to form air ducts, through which le air is introduced from their lower ends to cool the hot water reservoir.

★ D15 04469 D/04 ★J5 5147-12b
e for removing water from gaseous atmos. e.g. air - has nn with adjustable sidewalls for increasing or decreasing nn size
ITSUBISHI ELECTRIC CORP 07.05.79-JP-056738
12 (15.11.80) B01d-53/04 E03b-03/28
79 as 056738 (5pp26)
vice for producing plain water from the water content of a gas as atmos. in a desert area, comprises a column, adsorbent bed ched in the column to adsorb the water content, heater for ng tbe bed until desorbing, and condenser for condensing the bed water. The object is to enlarge the volume of the column in disorbing process and reduce it in the desorbing process.
e novelty is that movable walls are formed at the inner surface e side walls of the column, so that in the adsorbing process both are closely put on the side walls of the column and in the bing process, move away from them.

MITQ ★ D15 04470 D/04 ★J5 5147-126
Device for removing water from gaseous atmos. e.g. air - has column with double wall contg. heat insulating layer for improved thermal efficiency on desorption
MITSUBISHI ELECTRIC CORP 07.05.79-JP-056739
Q42 (15.11.80) B01d-53/04 E03b-03/28
07.05.79 as 056739 (5pp26)
A device for producing a plain water from the water content of gas such as atmos. in a desert, comprises a column, adsorbent bed formed in the column, heater for desorbing the water content, and condenser for condensing the desorbed water. The object is to improve the thermal efficiency in the desorbing process.

The novelty is that the outer wall of the column has a double wall contg. a heat-insulating layer consisting of a gas having a small thermal conductivity such as air. The double wall may consist of two steel or iron sheets. A partitioning plate may be inserted between them.

MITQ ★ D15 04471 D/04 ★J5 5147-127
Appts. for producing drinking water from moisture in atmos. - comprises column contg. adsorbent zone heater and condenser
MITSUBISHI ELECTRIC CORP 07.05.79-JP-056740
Q42 (15.11.80) B01d-53/04 E03b-03/28
07.05.79 as 056740 (6pp26)
Appts. comprises a column, adsorbent bed zone formed in the column, heater for desorbing the water content from the adsorbent, and condenser for condensing the desorbed water. The object is to remove dust introduced into a case, wbich houses the adsorbent.

The novelty is that the case is turnably supported by the side walls of the column, nozzles disposed above the case to jet compressed air onto it until removing dust from the surface of the case, and means for reciprocally moving a frame of the nozzles along a horizontal bar. The appts. is used in desert conditions.

MITQ ★ D15 04472 D/04 ★J5 5147-128
Appts. for producing drinking water from moisture in atmos. - comprises column contg. adsorbent bed burner for heating bed condenser and water reservoir
MITSUBISHI ELECTRIC CORP 07.05.79-JP-056741
Q42 (15.11.80) B01d-53/04 E03b-03/28
07.05.79 as 056741 (5pp26)
Appts. comprises a column, adsorbent bed formed in the column, burner for heating the bed until desorbing water content from the adsorbent, condenser for condensing desorbed water, and water reservoir for receiving the water. The object is to utilise outside air for cooling the condensed water and its heat for heating this air.

The novelty is in that a heat exchanger is located in the reservoir to heat exchange the outside air (to be used for burning a fuel in the burner) with the hot condensed water.

EBAI ★ D15 04494 D/04 ★J5 5147-182
Heavy metal-contg. waste solidification - by shaping in the presence of calcium, adjusting the water content and treating in an autoclave under raised steam pressure
EBARA INFILCO KK 04.05.79-JP-054985
J01 L02 P43 (15.11.80) B09b-03
04.05.79 as 054985 (4pp34)
Finely powdered heavy metal-contg. wastes (e.g. incinerated ash, sludge and Hedoro etc. or dust resulted in treatment of gas etc.) is solidified by shaping in the presence of Ca, e.g. Ca(OH)2, CaCl2, CaO etc., adjusting the water content of the shaped prod. to greater than 5wt.%, and treating it in an autoclave under elevated steam pressure. If necessary a solidification accelerating agent, e.g. diatomaceous earth, water glass, bentonite, perlite, Al(OH)3 fly ash etc. may be used in combination with the Ca component. A reducing agent, e.g. ferrous salt, sulphite, lignin, Mg, Zn etc. may be used in combination as well in the case of treating finely powdered wastes contg. a large amt. of Cr6+ as the heavy metal component.

Leaching-out of heavy metal components from the shaped prod. is effectively suppressed.

EBAI ★ D15 04495 D/04 ★J5 5147-185
Solidification of finely powdered heavy-metal contg. wastes - by shaping in the presence of calcium and treating in autoclave in non-oxidising atmos. under elevated steam pressure
EBARA INFILCO KK 08.05.79-JP-055907
J01 L02 P43 (15.11.80) B09b-03
08.05.79 as 055907 (4pp34)
Finely powdered heavy metal-contg. wastes (e.g. incinerated ash, sludge and Hedoro etc. or dust from gas treatment etc.) is solidified by shaping in the presence of Ca, e.g. Ca(OH)2, CaO and CaCl2, etc., opt. in admixt. with solidification accelerating agent, (e.g. diatomaceous earth, water glass, sand, bentonite, perlite, Al(OH)3, fly ash etc.) or reducing agent (e.g. ferrous salt, sulphite, lignin, Mg, Ca and Zn etc.). The shaped prod. is then treated in an autoclave under elevated steam atm., with the autoclave atmos. being non-oxidising, e.g. N2, Ar, He, CO, H2, CO2, steam etc. The temp. and

pressure of the autoclave is raised.

Leaching-out of Cr6+ from the shaped prod. is prevented, and handling property of the powder is improved.

DOWA ★ D15 04496 D/04 ★J5 5147-189
Improving quality of mine effluent - by addn. of antimicrobial, injecting into mineral region, etc.
DOWA MINING CO LTD 07.05.79-JP-055383
(15.11.80) A01n-31 C02f-01/50 C02f-03
07.05.79 as 055383 (4pp34)
Water in a mine pit is improved in quality by first filling it into the mine cavity and then removing water from the intermediate part. Antimicrobial agent, e.g. alpha-keto or benzoic acid (antimicrobial agent against Fe- or S-oxidising bacteria), is added, and the treated water injected into the surrounding mineral region to suppress dissolution of metal components of the minerals region. An upper portion of the filled water is removed.

Organic material contg. a large amt. of cellulose etc., e.g. sawdust, is provided at the bottom of the cavity to keep the under part of the filled water under reducing state and to cause growth of sulphate-reducing bacteria, thereby SO4(2-) and Fe ions contained in the water are reduced to difficultly soluble minerals and fixed. The under part of the water thus treated is lowered in density and rises slowly, after which it is taken-out at the intermediate part and injected into the surrounding mineral region under sulphate reducing bacteria-contg. state. Consequently, activity of oxidising bacteria in the mineral region is further suppressed.

NISO- ★ D15 04497 D/04 ★J5 5147-190
Deodorisation of effluent in waste treatment - includes addn. of inorganic iron cpd. e.g. ferrous chloride with oxidising properties
NIPPON SOLID KK 04.05.79-JP-054022
(15.11.80) C02f-01/72
04.05.79 as 054022 (2pp34)
Effluent from the treatment of waste, e.g. dust, garbage, sludge and animal and plant residue etc. is effectively deodorised by adding inorganic iron cpd. exhibiting oxidising effect, e.g. FeCl2, FeSO4, Fe(OH)2 and iron-bearing flocculants etc. in amt. of 5-5000 ppm, pref. 30-500 ppm.

In an example, a site to be land-filled is enclosed by sheet piles, and an effluent-treating region is provided similarly by the use of the sheet piles adjacent to the site to be land-filled. A partitioning wall perforated with discharging holes is provided between the site to be land-filled and the effluent-treating region. The waste is then discarded into the site to be land-filled, and polluted water is introduced into the effluent-treating region through the holes and treated with the inorganic iron cpd. under stirring, thereby generation of odour and bulking is effectively suppressed.

MITQ ★ D15 04498 D/04 ★J5 5147-191
Waste water treatment - by oxidn. in neutral to alkali range using ozone and hydrogen peroxide
MITSUBISHI ELECTRIC CORP 07.05.79-JP-055447
(15.11.80) C02f-01/72
07.05.79 as 055447 (3pp34)
Organic pollutants which are decomposed only with difficulty, e.g. lower fatty acids, ketones, alkylamines, complex cyan cpds. etc. contained in waste water, are effectively decomposed by oxidn. within neutral to alkali range by initially admitting ozone, and subsequently charging with a predetermined amt. of H2O2 soln. when ozone-monitor detects that ozone absorbability becomes 90-95%.

The ozone absorbability is initially nearby 100%, but gradually decreased as concn. of pollutants easily decomposable with ozone is lowered. By this introduction of H2O2 soln., oxidn. decomposition of remaining portion of the pollutants is performed, thereby the ozone absorbability is maintained at a high rate.

MITQ ★ D15 04499 D/04 ★J5 5147-192
Treating waster water contg. hydrogen peroxide - by irradiating with UV rays e.g. from low pressure mercury lamp whilst adding ozone
MITSUBISHI ELECTRIC CORP 07.05.79-JP-055446
(15.11.80) C02f-01/72
07.05.79 as 055446 (3pp34)
Hydrogen peroxide contained in small amt. in treated water is removed by irradiating UV rays, e.g. by means of low pressure mercury lamp while dissolving ozone in the water.

The H2O2 concn. is rapidly lowered so that the treated water is suitable for reuse. This process is esp. applied for treatment of treated effluent resulted in oxidn. decomposition of polluting matters contained in waste water by tbe use of a combination of ozone and H2O2.

MITQ ★ D15 04500 D/04
Treatment of thiosulphate-contg. waste water - by ozo initially at pH 6-9 and subsequently at pH greater than el
MITSUBISHI ELECTRIC CORP 07.05.79-JP-055445
E36 (15.11.80) C02f-01/78
07.05.79 as 055445 (5pp34)
Thiosulphate contained in waste water is converted into ozone aeration, at a pH of 6-9, and subsequently at pH g 11. Effective ozone utilisation becomes possible and the t is almost completely oxidised.

Tbe greater part of the thiosulphate is oxidised with ozo 6-9 in first ozone aeration vessel, thereby loss of ozone aeration vessel by self decomposition is decreased intermediate products resulting in the lower pH range converted into thiosulphuric acid and sulphuric acid higher pH range in sec. ozone aeration vessel. Ozone-con gas discharged from the first ozone aeration vessel is intro the sec. ozone aeration vessel.

SUMO ★ D15 04501 D/04 ★
Treating waste water by aerobic activated sludge proces bis:biguanide cpd. to improve settling
SUMITOMO CHEMICAL KK 07.05.79-JP-056105
E14 (15.11.80) C02f-03/12
07.05.79 as 056105 (4pp34)
In the treatment of waste water by aerobic activated sludg the improvement comprises adding to aeration vess biguanide cpd. of formulaR1R2NC(:NH)-NH-C(:NH)-N C(:NH) -NH-C(:NH)-NR1R2 (I) or salt.

In (I) R1 is halogenated phenyl, R2 is H atom or lower alk is polymethylene radical or (4:4') diphenylmethane in am than 300 (0.1-200) ppm against the waste water to be treated.

Mould contained in activated sludge is selectively remov short period without affecting activated sludge in the generation of mould bulking. Therefore settling of s improved without any damage on quality of treated wate decrease in MLSS.

The addition of the bis-biguanide cpd. may be carried conduit positioned just before the aeration vessel or at recirculating pipe.

MITO ★ D15 04502 D/04 ★J
Multistage waste water treatment - by bacterial oxidn. o cpds. nitrosomonas or Nitrobacter then denitrifying converting ammonium cpds. to nitrogen
MITSUBISHI HEAVY IND KK 00.00.80-JP-044559 (14. 054296)
(15.11.80) C02f-03/34
14.05.76 as 044559 80 Div ex. 54296/76 (4pp34)
Polluted water, e.g. sewage, industrial effluent, night so purified by (1) introducing it into a trickling filter bed remove by adsorption organic matters and sepg. it into sl supernatant liquor in a settling vessel.

This is followed by (2) introducing the supernatant liquor oxidn. vessel if necessary together with a portion of the water by-passed through step (1) to decompose organic ma CO2 and water by the action of BOD oxidising bacteri aerophillic atmos and (3) feeding a supernatant liquor se BOD-oxidising bacteria-contg. sludge to nitrification vessel ammonium nitrogen is converted to nitrate and nitril aerophillic atmos. by the action of Nitrosomonas and Nitrob

The final stage (4) involves introducinga supernatant liqu from nitrification bacteria-contg. sludge into a denitrificatio in which nitrate and nitrile are reduced to nitrogen in an a atmos. by the action of denitrification bacteria in the presen sludge obtd. from the trickling filter and organic carbo supplied from outside the system.

Volume of the BOD-oxidising vessel required in the st reduced and settlability of sludge in denitirification settling improved.

MIKA ★ D15 04633 D/04 ★J5
Cleaning and deodorising compsn. for stool flushing water by mixing poly:alkylene glycol surfactant and saccharide w additives
MIKASA KAGAKU KOGYO KK 04.05.79-JP-054856
A97 (17.11.80) C11d-01/72 C11d-03/20
04.05.79 as 054856 (4pp117)
Compsn. is obtd. by mixing a water-soluble solid polyalkyler series surfactant and a water-soluble saccharide or its de dextrin, alpha,beta,gamma-cyclodextrin, glycomannan, glycogen, methyl cellulose, carboxycellulose, sodium algin together with a perfume, a deodorant, a cleaner, a fungicide etc. as needed,and and then solidifying the mixt. by cooling.

The compsn. cleans, deodorises, sterilises and gives a fr and colour to the washing water effectively and simply.

In an example, 25% polyethylene glycol (mol. wt. 1000 polyethylene-propylene glycol (mol. wt. 8000), 25% perfum

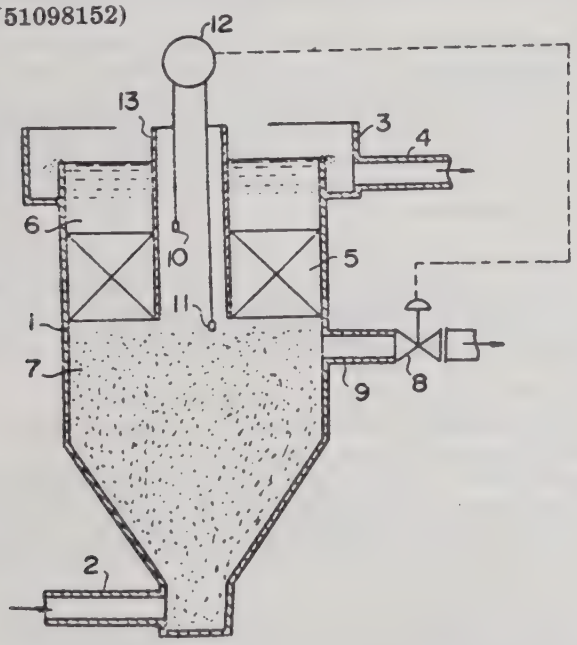
para-dichlorbenzene (deodorant), 3%
ethylenenonylphenylether (cleaning agent), 2%
onium chloride (fungicide), 1% moss remover, 3% blue dye,
% milk sugar, were mixed, melted by heating, and then
ed by cooling.

★ D15 04769 D/04 ★J5 5148-732
ering gold from waste plating rinsing water - by adsorbing
polymer having acid amide structural units, then leaching
ENCY OF IND SCI TECH 10.05.79-JP-056359
J01 M11 (19.11.80) B01j-20/26 C02f-01/28 C22b-11/04
9 as 056359 (2pp121)
n a waste water from a gold plating rinsing process is
ered by adsorbing gold on a polymer having acid amide bond
of the structure units, and then leaching the gold.
process provides a gold recovery method in which gold can be
ered even from a dilute soln. efficiently and also gold can be
ed or desorbed easily from the adsorbent. The polymer is
ylon formed into fibres, pellets or membranes. pH of the waste
is pref. 3-5.

D15 62153 X/33 = J8 0050-683
sepn from sewage water - by coagulation and gravity settling
flow
TSUBISHI HEAVY IND KK 25.00.75-JP-003615
*.12.80) *J51074-465 B01d-21/* + C02f-01/52*
4 as 003615 /75 (4pp)
sewage contg. 1-30% solids in suspension is mixed with
lant (e.g. alum cake, iron-chloride etc.) and passed obliquely
deg.) upwards in laminar flowthrough coagulation tank
ed with laminate board or group of pipes of internal dia. 10-100
length 1-6 mm) to the separator tank, for gravity sepn. Good
can be achieved and the appts. is small. (J51074465)

★ D15 04977 D/04 ★J8 0050-684
for sepg. dirty water into clean water and solid grains -
ises rhombic cross/section vessel contg. feed and drain ports
ted with horizontal perforated plate
TTO BOSEKI KK 28.00.75-JP-001180
.12.80) B01d-21/02 C02f-01/24
'4 as 001180 (8pp26)
for sepg. dirty water into pure water and solid grains is
ed. It has a rhombic cross sectional shape. A raw water feed
formed at a lower end section to flow up and drain at an upper
ction. A horizontal perforated plate is disposed near the drain
rectify the drain liq. (J51077971)

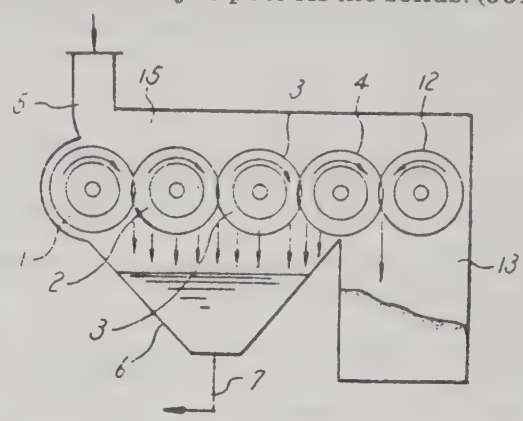
★ D15 04978 D/04 ★J8 0050-685
merating sedimentation tank - contains a filler comprising
al small pipes
ARA INFILCO KK 27.02.75-JP-024415
.12.80) B01d-21/02
75 as 024415 (3pp26)
vice for removing suspended solids from a dirty water by
g an agglomerant to it is new. It comprises a sedimentation
contg. a filler consisting of vertical small pipes. A slurry
lary face detector is located below the filler to control a slurry
valve. (J51098152)



U/ ★ D15 04979 D/04 ★J8 0050-686
ce for draining supernatant from sedimentation tank - has
e detector located below upper end of supernatant drain tube
UZUKI Y 24.06.75-JP-077788
9.12.80) B01d-21/24
75 as 077788 pp26)

A device for draining resultant supernatant from a dirty water contained in a sedimentation tank is claimed. The device comprises a sludge detector located below the upper end of a supernatant drain tube. A supernatant drain pipe is connected to the tube and located below the sludge level. (J52002059)

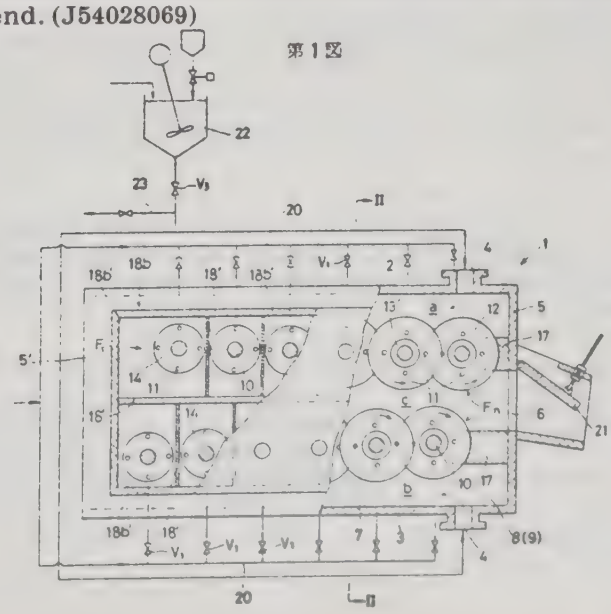
SANK- ★ D15 04981 D/04 ★J8 0050-688
Apparatus for sepn. of solids from waste water - comprises a series of brushed drums, the last rotating oppositely w.r.t. the others
SANKO SEISAKUSHO KK 19.11.77-JP-139160
(19.12.80) B01d-33/02
19.11.77 as 139160 (3pp26)
Device for sepg. solids from waste waters comprises rotary brushed drums arranged in a tank so as to feed the solids in one direction and another rotary brushed drum engaged with the last of first said drums and rotated reversely to peel off the solids. (J54071852)



MEIS- ★ D15 04982 D/04 ★J8 0050-689
Continuous filtering of dirty water - using device comprising rotary drum with wire net and precoat layer
MEISUI KOGYO YG 08.12.77-JP-147996
(19.12.80) B01d-33/06 B01d-37/02
08.12.77 as 147996 (3pp26)
Device for filtering dirtV water continuously comprises a rotary drum having a wire net over the side wall, on which a precoat layer is formed with the help of a precoat-assistant agent suspension feeder, and cake scraper in addn. to a second scraper for adjusting the thickness of the precoat layer. (J54079876)

MATS/ ★ D15 04983 D/04 ★J8 0050-690
Water filter for sewage and effluent - comprising encased cylindrical rotary filter, roller and water feed pipe
MATSUZAKI M 08.07.75-JP-083872
(19.12.80) B01d-33/18
08.07.75 as 083872 (3pp26)
A device for filtering sewage and dirty water is claimed. It comprises a cylindrical rotary filter mounted in a casing, roller disposed in the filter to turn the filter, and a water feed pipe is opened inside the filter and opposed to the roller.(J5207072)

KURK ★ D15 04984 D/04 ★J8 0050-691
Waste water filter - comprises rotary elements with pipe passing through shaft of each element
KURITA WATER IND KK 05.08.77-JP-093334
P71 (19.12.80) B01d-33/24 B30b-09/20
05.08.77 as 093334 (5pp26)
Rotary filter elements are arranged in a water tank for filtering the water. A pipe is passed through the rotary shaft of each element to drain a filtrate from one end and a wash water feeder is connected to the other end. (J54028069)



HONT- D15 52575 T/33 = J8 0050-698
Dispersion prepn - for a non-miscible dispersing phase in a continuous flowing phase
KENICS CORP (KEN) 25.01.71-US-109467
*J02 (19.12.80) *NL7201-020 B01f-05*
25.01.72 as 009419 (8pp)
Method of forming a dispersion of a first phase in a second flowing phase, which phases are non-miscible. The installation comprises (A) a pipe which contains several plate type curved elements which cover the longitudinal direction of the pipe, and are all curved to turn the flow direction of the liquid.
The elements are arranged in alternate left and right curved groups, and the front and back edges of adjoining elements are arranged in groups under a considerably angle w.r.t. each other; (B) a device for injecting these phases in the pipe; (C) a device in which these phases flow along the elements at pre-determined speed according to a WEBER No., and produces droplets from the first phase with a comparable dia. according to SOUTER. Application may be e.g. oxidation of oxidisable particles in river or lake effluent. (J47027870)

MITO ★ D15 04990 D/04 ★J8 0050-700
Stirring device, e.g. for water purifying plant - comprising small rollers for rotatably holding a pair of vertical annular rails having stirring blades fixed
MITSUBISHI HEAVY IND KK 26.08.74-JP-097666
J02 (19.12.80) B01f-07/04 C02f-01/52
26.08.74 as 097666 (4pp26)
A device for stirring a liq. such as water in a water purifying plant is claimed. It comprises small rolls for rotatably holding a pair of vertical annular rails, between which stirring blades are disposed and fixed to the rails. One of the rolls is coupled with a drive. (J51024976)

HITA ★ D15 04991 D/04 ★J8 0050-701
Aerating stirrer e.g. for fermentation tank - comprising porous rack plates located in draft tubes in stairs in the tank
HITACHI KK 19.11.73-JP-129220
J02 (19.12.80) B01f-12/02 B01j-10
19.11.73 as 129220 (8pp26)
Device is for stirring a liq. contained in a tank such as fermentation tank. It comprises draft tubes disposed in stairs in the tank, and porous rack plates arranged with spaces in the tank and located in the draft tube. (J50077584)

ELEX D15 55289 T/35 = J8 0050-710
Sewage treatment plant - using air bubble flotation
ELECTROLUX AB 09.02.71-SE-001584
*+P41 (19.12.80) *DE2202-162 B01f-03/04 B03d-01/26 C02f-01/24*
02.07.71 as 048174 (6pp)
The sewage is fed, with compressed air, into the flotation tank via a pressure vessel near the base of the tank in which the mixture remains for at least 3 mins. to ensure good dissolution of air bubbles, excess air being vented from the top of the pressure vessel. The mixture is fed to the main tank without any additional pressure loss. Cheap, simple, high efficiency plant. (J47018154)

INOZ ★ D15 04992 D/04 ★J8 0050-712
Purifying and dewatering appts. - has adsorbing collector prepd. from resin to collect sludge and oil
INOUE JAPAX RES INC 27.09.76-JP-115656
A97 J01 (19.12.80) B01d-17/02 C02f-01/28 C02f-11/12
27.09.76 as 115656 (3pp34)
In purifying and dewatering appts. in which an adsorbing collector made of synthetic resin is employed to collect sludge or oils from waters. The adsorbing collector moves alternately through open air and water, and an electric discharge activator is provided at a position just before the collector is transferred from the air to the waters so that the collector always touches the water in an activated state. (J53041053).

UBEI D15 15470 Y/09 = J8 0050-713
Activated charcoal purificn. of waste water contg. organic matter - using reductively treated activated charcoal for increased adsorbability
UBE INDUSTRIES KK 08.07.75-JP-083137
*(19.12.80) *J52007-155 B01d-15 + B01j-20/20 C02f-01/28*
08.07.75 as 083137 (2pp34)
The activated charcoal is first treated with a reducing agent which, when gaseous, may be directly contacted with the activated charcoal or may be used as an inert solvent soln; when the reducing agent is solid, it is also desirable to dissolve it in an inert solvent. The activated charcoal can be used repeatedly with excellent reproducibility. (J52007155)

ASAH D15 81980 Y/46 = J
Purifying polluted water using activated charcoal - with slurry of the charcoal after adsorption and contacting of sl oxygen-contg. gas in presence of copper ions
ASAHI CHEMICAL IND KK 29.03.76-JP-034656
*(19.12.80) *J52118-849 B01d-15/02 + C02f-01/28*
29.03.76 as 034656 (6pp34)
Polluted water is purified by contacting with powdered a charcoal in a fluidised state while passing along the surfa large number of inclined, parallel guide plates in an ac region.
A slurry of the activated charcoal is sepd. by pptn. a contacted with an O2-contg. gas at a high temp. and pressu presence of Cu ions (e.g. CuSO4, basic CuSO4 and Cu acetat Cu ion and ammonium ion (e.g. ammonium sulphate, bicarbonate, chloride, iodide, formate, acetate, oxalate, tart to regenerate the charcoal. The reactivated charcoal recycled.
High heating costs, as incurred in prior calcination rege methods, are eliminated. (J52118849)

NSOG ★ D15 04993 D/04 ★J8
Purificn. of asphalt emulsion-contg. waste liquor - by addi e.g. bentonite, and assistant e.g. fly ash
NIPPON SOGO BOSWI KK 11.09.72-JP-091620
L02 (19.12.80) B01d-15 C02f-01/52 C09k-03/32
11.09.72 as 091620 (3pp34)
The liquor is purified by adding to it clay whic exhibits adso e.g. bentonite and diatomaceous earth etc. and assistant from the cement, Ca(OH)2 and fly ash in the wt. ratio of followed by stirring and standing. (J49048154)

DAIE D15 47776 V/26 = J8
Ferrocyanide or ferricyanide waste water treatment - by he the presence of a hydroxide to temps above 140 deg C
DAINICHI NIPPON CABLES 18.04.72-JP-039405
*(19.12.80) *J49001-058 + C02f-01/58*
18.04.72 as 039405 (2pp)
A waste soln. contg. ferrocyanide or ferricyanide complex treated by heating at more than 140 deg. in the presence of a metal hydroxide.
In an example a soln. contg. 6800 ppm K4(Fe(CN)6) and 50 total cyanide was heated with steam at 170 deg., in the pres 2.4 moles NaOH/mole K4(Fe(CN)6) for 8 hr. The treate contained 0.12 ppm K4(Fe(CN)6) and 0.09 ppm total c (J49001058)

KANA/ D15 69310 X/37 = J8
Stabilisation of sludges - by mixing with calcium fluorid chloride and calcium carbonate forming materials and electr
KANAI M 18.09.73-JP-105242
*J03 (19.12.80) *J50056-061 + C02f-11/14*
18.09.73 as 105242 (4pp)
To stabilize a sludge, the sludges are mixed with CaF2, Zn CaCO3 forming materials such as Na2CO3 and CaCl subsequently electrolysed to form colloidal fluorides, wh polarity of CaCO3 and fibrous materials cancels each other insol. solids.
In an example, CaF2 -20-500 mg/l., ZnCl2, Na2CO3, and CaC added to a sludge contg. 20 ppm Cr in the above order, and th was electrolysed with 100 mA-1 A/l. d.c. for 1-3 hrs. The drie thus prepd. were pulverised, and washed witb an equal amt the amt. of solid of water and passed through a filter pap filtrate was colourless and contained 19 and 0.0005 ppm COD respectively. (J50056061)

MITS- D15 80722 A/45 = J8
Coagulating agent for waste water or sludge - comprises c soluble inorganic aluminium slat, and calcium carbonate, o hydroxide
MITSUBOSHI KAGAKU G 12.03.77-JP-027271
*L02 + P43 (20.12.80) *J53112-277 + B09b-03 C04b-07/35*
12.03.77 as 027271 (3pp51)
In an example, 500 g cement, 500 g calcium oxide and 30 g of a aluminium phosphate were mixed with 1 l of waste water con hydroxide sludge. The resulting mixt was poured into a mo solidified after 30 mins. (J53112277).

MAXW- D15 63604 S/40 = J8
Plate type evaporator
MAXWELL DAVIDSON LTD (MAX) 04.03.70-GB-010301
*J01 Q78 (25.12.80) *DE2109-578 B01d-01/26*
04.03.71 as 010975 (15pp-)
Plate type evaporator using steam for evaporation of other comprises pairs of plates with their middle section constitu evaporator duct, while at the top the plates are close toget

ssure reducing openings for the liquid to flow.
l such evaporation stages are combined, one above another.
ge has a collector trough to separate the steam condensate
remaining non-evaporated liquid coming from the central e
n duct. (J51002255)

★ D15 05041 D/04 ★J8 0051-605
dialysis membrane in poly:ol - to improve water permeation
eristics
UYAMA SODA KK 18.03.74-JP-030096
J01 (A14) (25.12.80) B01d-13 C25b
as 030096 (3pp38)
sis membrane contg. a fluorine resin is soaked in an organic
and then in a polyol to improve the water permeation
eristics of the membrane.
example, a 0.9 mm thick membrane contg. 70% asbestos
nd 30% tetrafluoroethylene-hexafluoropropylene copolymer
aked in MeOH for 10 min.' soaked in polyethylene glycol
. 200) overnight, and dried in air for 0-14 days. The water
tion rate was 0.324, 0.319, 0.327 and 0.321 ml/hr sq.cm H2O
r drying for 0, 1, 3 and 14 days respectively. (J50123084)

★ D15 05042 D/04 ★J8 0051-606
or reverse osmotic sepn. of liquids - has pressure-durable
contg. assembly of tubular units including a semipermeable
rane
BE STEEL KK 31.05.72-JP-054189
(25.12.80) B01d-13
2 as 054189 (6pp26)
or reverse osmotic sepn. of a liquid such as dirty water and
ter etc., comprises a pressure-durable casing, and assembly
ular units housed therein. Each unit consists of a
ermeable membrane laid over the inner cylindrical wall of a
tubular cell having a polygonal shape. (J49010881).

★ D15 05043 D/04 ★J8 0051-607
liq. e.g. waste water into water and oil - using assembly of
ilic fibre cloths housed in porous tube in casing
IJIN KK 30.01.73-JP-012238
(25.12.80) B01d-17/02
3 as 012238 (5pp26)
d and device for sepg. a liquid such as waste water into water
l are claimed. The device comprises an assembly of fibre
, which show a lipophilic property, housed in a porous tube
d in a casing. The liquid is fed into the tube so as to flow along
rface of each fibre cloth. (J49101962).

★ D15 05044 D/04 ★J8 0051-608
a mixt. of oil and water - using a device comprising a
ator packed with fibre cloths
IJIN KK 09.03.73-JP-026955
(25.12.80) B01d-17/02
73 as 026955 (5pp26)
ppts. comprises a separator tube packed with an assembly of
cloths and housed in an outer casing. The mixt. e.g. waste
is fed into the tube, flowing at a rate of 0.1 to 10 cm/sec, and
d at a rate of less than 20 cm/sec in the casing. (J49132661).

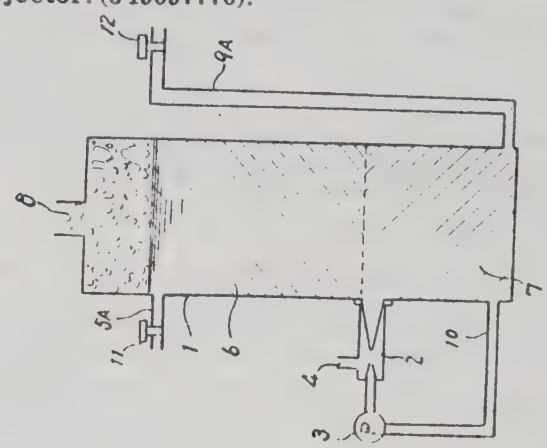
★ D15 05048 D/04 ★J8 0051-614
e for dispersing water into waste water - in water purifying
or fish farm, to effect aeration
IINMEIWA IND KK 13.01.77-JP-003265
.12.80) B01f-01 C02f-01/74
77 as 003265 (3pp26)
e for dispersing water into a dirty water in a water purifying
or fish farm is claimed for aerating the water. The device
rises an axial-flow impeller inserted in a casing consisting of a
feed pipe opened toward the plant or farm, and a water
rsing wheel provided coaxial to the impeller. (J53088263).

D15 39855 W/24 = J8 0051-615
e sludge treatment - by heating with powder and cooling to form
ulated solid particles
IPPON ZEON KK 21.12.72-JP-128527
*(25.12.80) *J49084-965 + B01j-02 C02f-01*
72 as 128527 (4pp-)
ispersion contg. a solid which becomes soft and sticky at 80-
g.C is mixed with a powder which does not become soft or
y in the above temp. range so that the wt. ratio of the 2 solids are
), then the mixt. is heated to 80-250 deg. C but above the
ning point of the 1st solid, and then gradually cooled to form
ulated solid particles. The method is useful for treating waste
. from paper mfg. the textile plants as well as other industrial
es such as starch dispersion, carbide sludges, and tar contg.
e solns.

In an example, 3 vol. parts of residual dispersion from high temp. cracking of naphtha (contg. tar 26.5% solid 4.8%, and water 68.7%) and 1 vol. part of sawdust were charged into an autoclave, he heated to 180deg.C by introducing 190deg.C stream into the autocalve, then the temp. was slowly lowered to room temp. to give solid particles of 8-24 mesh size. (J49084965)

EBAI ★ D15 05049 D/04 ★J8 0051-616
Device for agglomerating waste water suspensions etc. - has reciprocating shaft carrying stirring blades and inserted into tank
EBARA INFILCO KK 30.04.74-JP-048518
(25.12.80) B01j-02/10 C02f-01/52
30.04.74 as 048518 (3pp26)
Device for agglomerating very fine grains suspended in a liquid such as waste waters, comprises a rotary shaft vertically inserted into a tank, stirring blades mounted on the shaft, and drive for reciprocally turning the shaft in the tank. (J50140374).

MITQ ★ D15 05050 D/04 ★J8 0051-618
Gas dispersing appts. supplying gas to liq. - comprises a reaction tank and ejector connected to a middle side wall
MITSUBISHI ELECTRIC CORP 23.01.73-JP-009695
(25.12.80) B01f-05/10 B01j-10 C02f-01/70
23.01.73 as 009695 (4pp26)
A device for dispersing a gas into a liq. is claimed for treating the liq. e.g. dirty water by a gas e.g. air. It comprises a reaction tank and ejector connected to a middle side wall of the tank to jet the liq. (sucked by a pump from the tank) into the tank, together with the gas fed into the ejector. (J49097776).



MITP D15 19843 X/11 = J8 0051-635
Solid treatment of waste material - by moulding with Portland cement and waste metallurgical slag, and steam-curing
MITSUBISHI KOG CEM 22.07.74-JP-084020
*L02 + P43 (25.12.80) *J51012-381 C04b-29 + B09b-03 C02f-11*
22.07.74 as 084020 (8pp-)
Portland cement (or Portland-type cement mixt.) and metallurgical slag contg. calcium aluminate are added, with a suitable amt. of water, if necessary, to slurry, powdered or granular waste contg. injurious material.
The mixt. is then moulded and the moulding steam cured at 60-85deg.C for 5-15 hrs.; curing may be effected at any time after moulding.
The prod. has equal strength and never eluates the injurious material. The waste is solidified with concrete in a few hours. The size of the treatment plant is reduced and use of water metallurgical slag greatly reduces cost. (J51012381)

MITU ★ D15 05051 D/04 ★J8 0051-636
Organic anion-contg. waste water treatment - includes removing dirt at oil-water interface, heating dirt to remove water and filtering off oil
MITSUBISHI CHEM IND KK 10.08.73-JP-089877
J01 (25.12.80) B01d-11/04 C02f-01/26
10.08.73 as 089877 (4pp83)
In treating organic anion-contg. waste water bv anion exchange soln. in mixer-settler type extraction system, improvement comprises withdrawing dirt layer formed at interface of oil layer and water layer in the settler, heating the dirt layer to remove water and filtering the residual oil for re-use.(J50038359).

NINA/ D15 08205 W/05 = J8 0051-639
Spongy activated sludge waste water purifier - prepd. by putting activated sludge and spongy resin pieces into aeration tank
NINAGAWA T 23.10.72-JP-106382
*A97 (25.12.80) *J49064-621 + C02f-03/12*
23.12.72 as 106382 (4pp-)
Spongy activated sludge is prepd. by putting activated sludge and spongy resin pieces into an aeration tank, aerating for adhesion of the activated sludge in pores of the resin pieces, and cultivating for

1-2 days. The concn. of activated sludge in aeration tanks can be always maintained at high level (15,000- 25,000 ppm) and thus the purifying efficiency of waste water is improved.

In an example, . activated sludge (5000ppm) and 2000cc cubic polyurethane foam (2cm) were mixed in an aeration tank and aerated for 24hr. The resulting foam was transferred into another aeration tank and cultivated under a BOD capacity load of 1.0kg/ day m cubed to obtain spongy activated sludge. Then, a starch soln. (BOD 475 ppm) was passed through the tank at 4,8 and 12.1./ day for 7 days. The BOD redn. was 98% compared to 85 by the std. activated sludge method. (J49064261)

KANK- D15 54722 X/29 = J8 0051-640
Chloracetaldehyde sepn from waste water - by treating with alkali before activated sludge process
KANKYO KAG CENT 12.06.73-JP-066141
*E19 (25.12.80) *J50015-361 + C02f-03/12*
12.06.73 as 006614 (3pp-)
Waste waters contg. chloracetaldehydes are treated with alkalis before being treated by the activated sludge process. The alkali treatment changes the organic Cl cpds., which interface with the activated-sludge process, into inorganic Cl cpds. having relatively low toxicity.

In an example, a ClCH2CHO-contg. waste water (organic Cl 3920 mmole/1., COD 99,200ppm) 100 and 6N NaOH 100ml. were mixed. The mixt. was heated at 100 deg. C for 1 hr. The pH of the mixt. was adjusted to 3 and the mixt. centrifuged. The supernatant liq. was Cl-free and treated with FeSO4. The mixt. was allowed to stand to separate the supernatant liq. and sludge. The COD in the supernatant liq. was decreased 39%. The supernatant liq. was treated by the activated-sludge process. (J50015361)

KRUG- ★ D15 D/04 ★SE 7904-393
Water purification process - uses UV radiation converting air oxygen into ozone, which then enters water
FA KRUGER H 18.05.79-SE-004393
(22.12.80) C02b-03/02
18.05.79 004393 (-pp1161)
The cleansing apparatus is for water, and works on the basis of extermination of noxious micro-organisms. It is particularly suited to areas where there is no communal supply. Ultra-violet radiation is used to convert oxygen into ozone, which then enters the water.

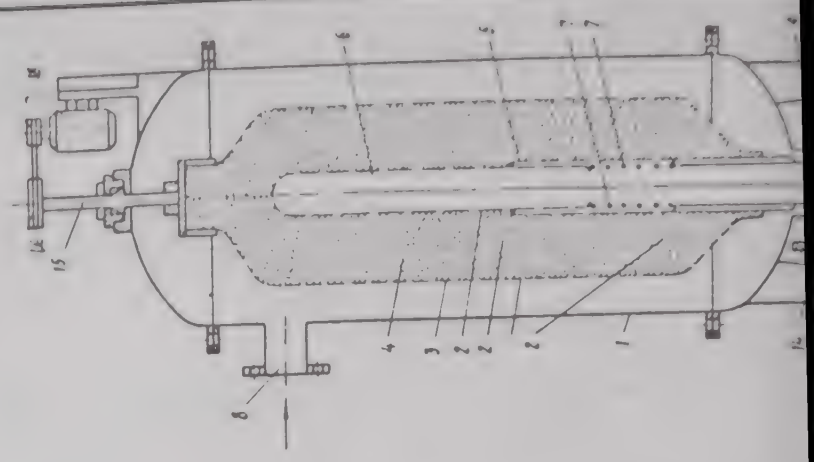
An ultra-violet radiation source is fitted in a quartz glass tube through which air flows, which, with the oxygen converted into ozone, enters the water. The ultra-violet radiation has a direct effect on the water in a treatment container which surrounds the glass tube.

AKMI = ★ D15 05147 D/04 ★SU -734-274
Microbiological purificn. of waste water - using Arsenomonas arsenooxidans bacterial strain to remove arsenic-contg. contaminants
AS KAZA MICROBIOL 09.01.78-SU-592110
(D16) (15.05.80) C02c-01/02 C12k-01/02
09.01.78 as 592110 (3pp938)
Novel Arsenomonas arsenooxidans bacterial strain is used in microbiological purificn. of waste water contaminated with toxic trivalent arsenic cpds. In the presence of organic impurities trivalent arsenic is oxidised to pentavalent arsenic by the above strain.

The new strain is Gram-negative and assimilates most hydrocarbons, alcohols and organic acids. Trivalent arsenic is oxidised in a medium contg. (in g/l): glucose 5; sodium carbonate 1; sodium acetate 1; calcium gluconate 1 and potassium nitrate 1. It has max. cell growth rate neutral or weakly alkaline aq. medium contg. large amts. of organic material at 28-35 deg.C. The strain was isolated from Au-As mine water. It can oxidise 1 g/l. arsenic over 20 days period. Bul.18/15.5.80.

MAKS/ ★ D15 05196 D/04 ★SU -735-277
General purpose liquids filter - has upturned cup and telescopic perforated tube for max. compression of petroleum prods. during regeneration
MAKSIMOV G N 12.12.77-SU-552779
J01 (25.05.80) B01d-29/38
12.12.77 as 552779 (3pp132)
The filter for aq. effluents, in particular for elimination of fasts and oil products comprises a casing, a filtration assembly free to rotate on a shaft and pipes for supply and removal of the liquid.

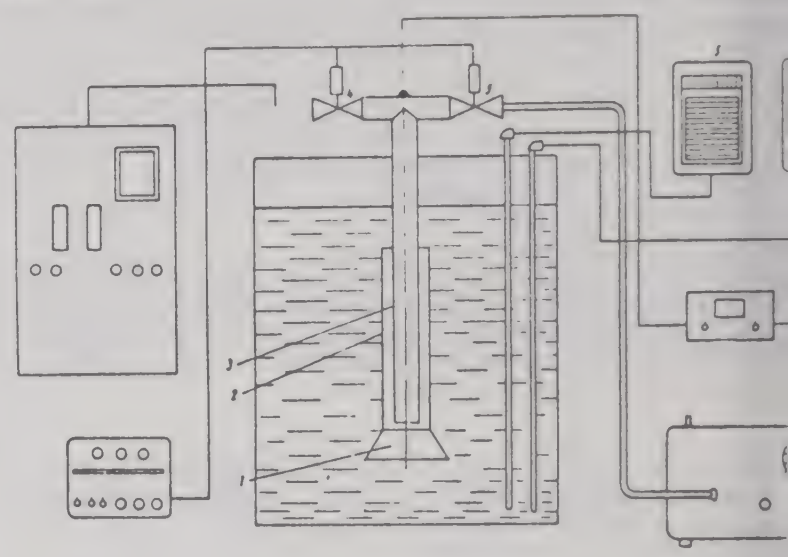
To increase regeneration efficiency by maximising the redn. of petroleum prods., a perforated tube is telescoped inside the assembly alongside an upturned spring loaded cup.



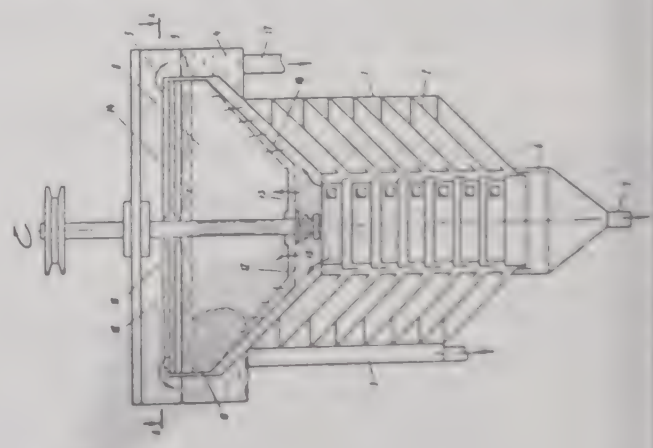
AUTE = ★ D15 05207 D/04 ★
Pulse aerator for liquids - has diffusor pipe and discha with specific dia. ratio, to increase phase contact area
AS UKR TECH THER PH 12.07.76-SU-386144
J02 (27.05.80) B01f-13/02 C02c-01/10
12.07.76 as 386144 (3pp132)
The aerator comprises a diffusor with a cylindrical pip feed unit and discharge piping with a cut-off and a control.

To increase the phase contact area, the piping is coaxia cylindrical pipe. The pipe to piping dia. ratio is 1.1-1.7.

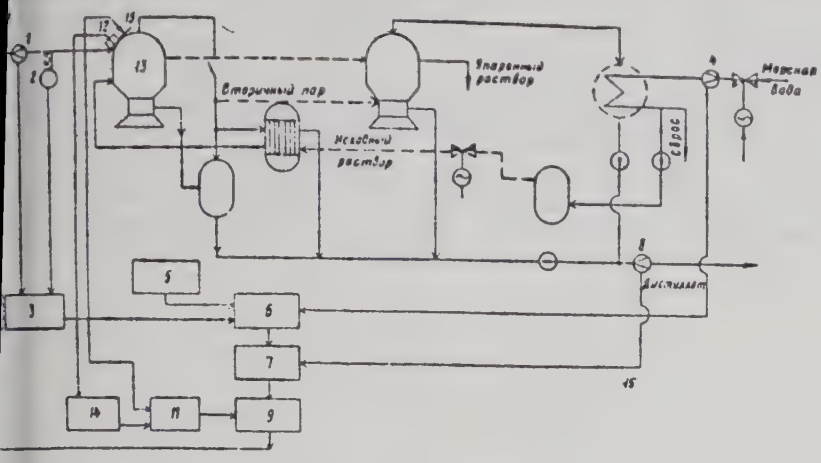
At a gas-liquid emulsion velocity of 3-7 m/sec. and a fre 40-200 pulses per min. the boundary layer becomes turbul vibration of the liquid surrounding the aerator or the entir the aerator is placed in a container. The air inlet speed i than 3m/sec. with partial bubbling in the emulsion prior to the air supply.



GOEN = ★ D15 05220 D/04 ★S
Industrial effluent purificn. plant - has self-cleanin chamber with rotary drive, granular charge and blades ou
GORKI ENG CONS INST 07.12.77-SU-550697
A88 P41 (25.05.80) B04c-09 C02c-01/26
07.12.77 as 550697 (5pp18)
The industrial effluent purificn. plant comprises a cylind contg. conical diaphragms, distributor mechanism for sup fluid,bunker with sludge outlet and annular water drain the clarified fluid. To prevent fine particles being carried rising flow of fluid, it has a self-cleaning sprung chamber to a rotary drive, filled with a granular charge, and with the outside. The charge is of granulated low density pol grain size 2-4mm.Bul.19/25.5.80.



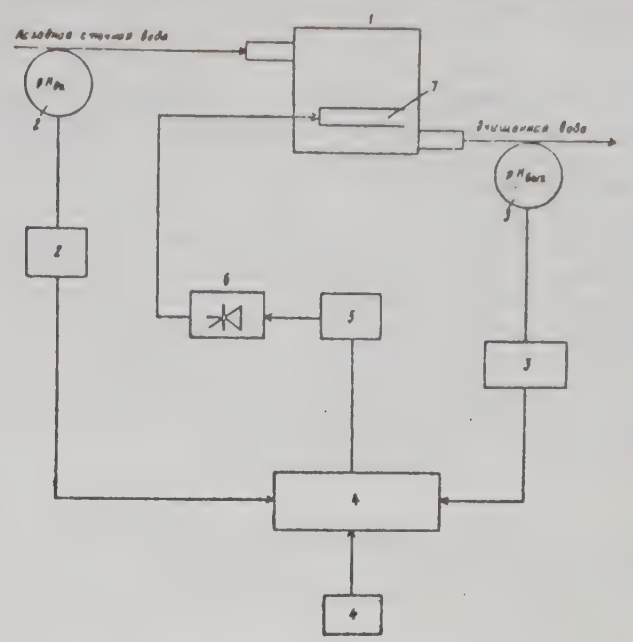
★ D15 05294 D/04 ★SU-735-572
ter thermal desalination control - by applying weighting to heat flux, sea water flow-rate and power consumption to um to measured throughput
ROPOLSKII A N 07.07.77-SU-504672
(25.05.80) B01d-01 C02b-01/06 G05d-27
as 504672 (3pp840)
control of thermal desalination of seawater to produce g and industrial process water involves relating the steam te to secondary vapour pressure. To reduce the cost per 1t of te by greater productivity, weighing coeffts. are applied to at flux, seawater flow-rate and power consumption to te the ratio of the sum of these quantities to measured nput to regulate the steam flow. New method is also useful for generators at power stations and for mineral salt extn. 25.5.80.



/ ★ D15 05295 D/04 ★SU-735-573
ling of mineralised aq. waste, e.g. petroleum processing waste reatment with lime and evapn. in presence of solids formed in ss to prevent scale formation in appts.
OLOTYGIN YU A 25.02.72-SU-751861
5 (25.05.80) C02b-05/02
72 as 751861 (2pp815)
ralised waste water, e.g. from petroleum processing plants can tened by treating with lime followed by evapn. and sepn. of the and formation of deposits in the evaporator can be avoided by ing out the evapn. in the presence of the solids formed in the ss, instead of sepg. them.These solids consist of calcium nate and magnesium hydroxide, and act as seed crystals to nt scale formation. As a result, the heat transfer coefft. is oved, the process becomes more stable, utilisation is mised, the periods between washing of the appts. are ened, and consumption of wash liquor is decreased. The water is of sufficiently high quality to use as a wash for petroleum.

/ ★ D15 05296 D/04 ★SU-735-576
oving polymer and surfactant from latex prodn. waste - by ng with aluminium sulphate in presence of carbon dust with lling of partially spent carbon
RUKOV F I 03.06.75-SU-140316
5 (28.05.80) C02c-05/02
75 as 140316 (3pp815)
aste from latex prodn. contg. surface active agents is clenaed continuous process by treating with an anti-agglomerant and with an inorganic electrolyte such as aluminium sulphate in the nce of a suspension of activated carbon dust in an amt of 0.5-0.9 g polymer.The spent carbon is recycled to the pretreatment to act as the anti-agglomerant. The previous process used a of polyethylene-glycol ethers of synthetic fatty acids as the agglomerant, but this only removed latex and not the surface e agents.

0= ★ D15 05297 D/04 ★SU-735-577
strial effluents electro-flotation purificn. control - by relating rode current density to set difference between pH value of fied water and pH value of initial effluent
APORO KOMMUNAR CAR 12.12.77-SU-552415
25 (25.05.80) C02c-05/12 C02d-27
.77 as 552415 (3pp840)
ier control of effluent purificn. by electroflotation in e.g. the iron steel industry involves varying the electrode current density. improvement of purificn. the electrode current density is ted to a set difference between the output pH-value of the fied water and the input pH-value of the initial effluent. For al effluent with pH-value 5.5, the turbidity of the purified Water w 9 compared with 30 obtd. by the earlier method.Bul.19/25.5.80.



BRTO D15 72249 B/40 #US 4243-065
Liquid degassing appts. e.g. for sewage - has skirt leading into siphon falling leg from closure and extraction line through closure
BOC LTD 13.03.79-GB-008887 (19.03.79-US-021661)
*J01 + Q66 (06.01.81) *GB2016-947 + F16k-24*
19.03.79 as 021661 (3pp1376)
Gas is removed from liq. using appts. which includes a siphon having a rising and a falling leg, a skirt opposite the top part of the rising leg and hanging from an upper closure, and a tube extending through the closure outside the skirt connected to the siphon. A gas pump is connected to the other end of the tube.
Pref. the rising leg lies co-axially in the falling leg. The tube may be heated.
Gas can be removed from waste water to increase the space for O2.

ENVI- ★ D15 05516 D/04 ★US 4243-521
Aeration and settling of waste water - with pumped return of sludge from settling tank
ENVIRONMENTAL DYNAM 09.04.79-US-028051
(06.01.81) C02f-03/20
09.04.79 as 028051 (6pp295)
Waste water enters an aeration chamber and after treatment is transferred to a settling chamber. Sludge from the bottom of the settling chamber is returned to the aeration chamber via conduit which aspirates ambient air to aerate the sludge. The outlet of the settling tank is discharged into a drainage area.
The outlet of the recycled sludge conduit terminates adjacent the outlet of the aeration chamber. The sludge creates a fluid flow which keeps the outlet of the aeration chamber free of solids.
The appts. is used for the aerobic treatment of sewage and waste water. The recycling of the sludge is via a separate conduit and thus the forward feed conduit from the aeration to the settling chamber is not blocked by solids.

KRUG- D15 03782 C/03 = US 4243-522
Heat recovery system on effluent discharge - having recycle around evaporator of heat pump to balance out variations in flow
KRUGER I A/S 22.06.78-DK-002820
*Q74 (06.01.81) *DE2925-055 + C02f-03*
21.06.79 as 050537 (4pp1376)
Heat in waste water from biological purification plant is utilised by passing it through the evaporator of a heat pump having a capacity equal to the ave. flow rate. When the flow rate falls below ave. part of the waste water is recirculated to a settlement tank immediately upstream of the evaporator which acts as a heat reservoir.
Heat pump can be used at full capacity at all times.

ALWA- D15 20214 C/11 = US 4243-523
Water purification and desalination appts. - with recirculation of water through reverse osmosis membrane
ALLIED WATER CORP 07.08.78-US-931846 (17.10.77-US-842613)
*(06.01.81) *WP8000-310 + B01d-13 B01d-31*
07.08.78 as 931846 (9pp 1376)
Sea water is desalinated by passage through a membrane having a flow cross-section with a width to height ratio greater than 50, and recirculating part of the concentrate from the outlet. Initially the feed flow to the membrane is less than the design min flow velocity, the recirculation causing the feed flow to exceed the design rim. Concentrate is continuously discharged at a rate less than design min.
Pref the feed flow is between 100 galls/day and 25 galls/min, and the recirculation rate is between 0.5 and 5 galls/min.

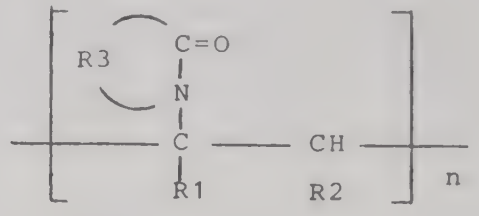
Solute level in the desalinated water is more easily controlled.

FMCC ★ D15 05517 D/04 ★US 4243-525
Disinfection of water - by addn. of hydrogen peroxide before chlorination, reduces tri:halomethane prodn. (J5 15.10.80)
FMC CORP 29.03.79-US-025179
E36 (06.01.81) C02f-01/72
29.03.79 as 025179 (6pp478)
The water is treated with 0.1-50 ppm H_2O_2 so that contained organic cpds. are oxidised; (b) sufficient Cl_2 is then added to react with the H_2O_2 and maintain a residual amt. of Cl_2 to disinfect the H_2O. Formation of trihalomethanes is less than 295 ppb. In step (a) pref. 1-10 ppm H_2O_2 is added, step (b) pref. lasts 0.5-24 hrs.
Inexpensive process using the readily handled, nontoxic H_2O_2 prior to conventional sterilisation with Cl_2 avoids the known prodn. of trihalomethanes ($CHCl_3$, $CHCl_2Br$, etc.).

RANS/ ★ D15 05518 D/04 ★US 4243-526
Brine desalination by spraying into hot air stream - removing brine droplets and condensing vapour
RANSMARK S E L 15.02.79-US-012405 (01.03.78-US-882535)
(06.01.81) C02f-01/12
15.02.79 as 012405 (4pp293)
An airstream is recycled through a heater associated with an internal combustion engine. Brine passes through a heat exchanger and is delivered to nozzles which spray the brine into the recycled hot air stream. Brine droplets are removed by a screen and the vapour condenses on the heat exchanger to yield a pure water prod.
Opt. the internal combustion engine drives the compressor of an external refrigeration system. In this embodiment the compressor provides further heat for the recycled air stream.
The appts. uses waste heat from an internal combustion engine to desalinate sea water.

KILC- D15 44431 B/24 =US 4243-536
Cross-flow filtering appts. - has vertical stack of filtering discs mounted on collecting tube into which filtrate is forced along spiral paths induced by inlet tube
KILCHER-CHEMIE AG 01.12.77-CH-014689
*J01 (06.01.81) *EP---2-422 B01d-31 + B01d-29/34*
27.11.78 as 963994 (6pp1376)
Cross-flow filtering appts. consists of spaced filter discs sta supported by a filtrate collecting pipe in a tubular housin inlet and an outlet pipe both parallel to and one being adjac filtrate pipe and extending through the filters. The other near the edges of the disc and both pipes define apertures each pair of filters to feed fluid across the filters. The flow inlet pipe is tangential to the filters to create a helical flow.
Filter is efficient and cheap to use.

MONS ★ D15 05550 D/04 ★US
Poly-(vinyl-phosphonomethylene-amino-carboxylates) - u metal complexing agents, and scale and corrosion inhibitors
MONSANTO CO 02.03.79-US-016859 (10.11.75-US-630231)
A14 E13 M14 (A97) (06.01.81) C07d-401/14 C07d-403/14
02.03.79 as 016859 (+ 15.9.76, 31.3.77-US-723390, 783360) (8pp47
Polyvinyl-cpds. (I) are new. (where R1 and R2 are H, Ph, 1-
R3 is 3-15C benzylene, C_6H_4, naphthylene, or alkylene substd. by 1-6C alkyl, OH, F, Cl, Br); n is 4-200; and each of the cyclic amide gps. have been replac
M1OP(:O)(OM2)CH2NR3CO2M3 (gp. A); M1-M3 is H, metal, up to 10C alkyl-ammonium).
(I) are effective metal ion sequestrants and are useful treating applications as scale and/or corrosion inhibitors to metal corrosion by O2-contg. waters. (I) are also effective wh with Zn^{2+} or (di)chromates, or azole corrosion inhibitors.



See Also
D16 J8 0050679

D16: FERMENTATION INDUSTRY

GENE- ★ D16 03727 D/04 ★BE -884-012
Cloning vector contg. semi-synthetic gene - for expressing a polypeptide, esp. human growth hormone
GENENTECH INC 05.07.79-US-055126
B04 (29.12.80) C12n
26.06.80 as 884012 (33pp1251)
A cloning vector (A) which is able to express a specific polypeptide (I) of known amino acid sequence when a gene coding for (I) is incorporated under control of a promoter, is made by obtaining a first fragment (II) of a gene coding for a sequence other than (I) by inverse transcription of messenger RNA. (II) contains a substantial portion of the sequence for coding (I) and if it includes codons for amino acid sequences other than those required in (I) these are removed.
One or more fragments coding for the rest of the (I) sequence are synthesised, at least one including the N-terminal code, and these are introduced together with (II) into an appropriate reading-phase cloning vector, esp. a bacterial plasmid.
Bacterial plasmids able to express human growth hormone (HGH) without prodn. of a conjugated foreign protein, and transformed bacteria contg. such plasmids are also new. HGH is useful for treating hypopituitary dwarfism, diffuse gastric bleeding, pseudoarthritis, burns, cicatrisation, dystrophy and consolidation of bones. It can now be prepd. on a larger scale; the only source currently is the hypohysis from human corpses.

FARB ★ D16 D/04 ★BR 8003-279
Prepn. of piperidino-dione - prepn. and use of herbicidal compsns., microorganisms and cultures
BAYER AG 07.09.79-DE-936238 (26.05.79-DE-921401)
C02 (30.12.80) A01n-43/40 C12p-01/06 C12r-01/54

NADI ★ D16 D/04 ★BR 8003-333
Anhydrous ethanol prodn. from dil. aq. ethanol
NATIONAL DISTILLERS CORP 29.05.79-US-043189
E17 (30.12.80) C12f-01

EXNE/ ★ D16 03874 D/04 ★DE
Microorganism colonies transfer tool - comprising parallel on carrier plate with handle, used for transfer from pri selective media
EXNER M 05.07.79-DE-927141
(15.01.81) C12m-01/26 C12q-01/08
05.07.79 as 927141 (14pp39)
Colonies of microorganisms, specially of prim. colonies whi grown up on a prim. nutrient medium, have to be transf several selective nutrient media during a culture differentia other biotechnical research.
The primary colonies are picked up by applying to them a tool with many independent adhesive elements, e.g. bristles pressing the tool with the adhering cultures in turn on eac sec. nutrient media.
This creates a hygienically satisfactory method for colonies to selective nutrient media in which the same applied to each and in the same pattern.

KYOW ★ D16 04003 D/04 ★DE
Galactose oxidase microbiological prodn. - by fermenta gibberella spp., e.g. gibberella fujikuroi or gibberellazeae
KYOWA HAKKO KOGYO 05.07.79-JP-084407
B04 (15.01.81) C12n-09/04
04.07.80 as 025424 (14pp280)
In a new process for the prodn. of galactose oxi microorganism of the genus Gibberella which is capable of galactose oxidase is cultivated in a nutrient medium and the is separated from the culturebroth.
Pref. microorganisms are Gibberella fujikuroi and G.ze G.fujikuroi Y-530929 (NRRL 12168) and T-280530 (NRRL 121 G.zeae K-240319 (FERM-P 5068). The cultivation is pref. car in the presence of zinc ions (pref. in the form of zinc chl sulphate in a concn. of 0.0001-0.005% w/v) and of copper ions the form of copper sulphate or of copper (II) chloride in a c 0.001-0.5% w/v).
Galactose oxidase (EC 1.1.3.9) is useful for the determin galactose in organisms and in biological fluids such as

e oxidase accumulates in high yield in the culture broth, e cell-free culture broth.

D16 81425 Y/46 = DS 2712-072

onas aeruginosa determination in urine - using nutrient ntg. trypticase soya, nitrate and cetyl trimethyl bromide

OWELL CO (MCDD) 03.05.76-US-682653

*03 S05 (15.01.81) *DE2712-072 + C12q-01/04*

s 712072 (3pp-)

medium for the determination of Pseudomonas aeruginosa a nutrient substrate, an additive which sustains the tion of Pseudomonas and formation of pigment in the ce of limited oxygen concns., and cetyltrimethylammonium (0.29-0.31, pref. 0.3g/dm3) to inhibit the growth of Gram e organisms.

rod. is a valuable diagnostic aid. (DS)

D16 75673 B/42 = EP G004-649

oxy:acyl aminoacid ester derivs. - chromogenic substrates nostic assay of chymotrypsin-like enzymes

ER AG 11.04.78-DE-815555

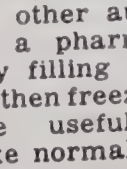
*J04 S03 (B05 S05) (07.01.81) *EP---4-649 C07c-103/46 G01n-8*

as 100967 (11pp922) (G) No-Citns. E(BE CH DE FR GB IT NL

N-carboxyacyl aminoacid esters are of formula:-

C-X-CONH-CH(CH2-Z)-COOY (I)

X is 2-4C straight chain alkylene or alkenylene opt. substd. by kyl or is opt. substd. o-phenylene. Y is opt. substd. phenyl or yl and Z is phenyl or indolyl opt. substd. by hydroxy). They e produced by reaction of H2N-CH(CH2-Z)-COOY with (II) (I) sily soluble in aq. systems and are useful as chromogenic ates for the (diagnostic)determination of enzymes with trypsin-like specifically (esp. Cathepsin G).



(II)

D16 41464 C/23 = EP --20-781

se decomposition prod. soln. prodn. - using beta-galactosidase sel divided by dialysis membranes

ORINAGA MILK KK 24.11.78-JP-145686

*3) (07.01.81) *WP8001-034 A23c-09/12 A23c-17/02 A23c-21/02 31-01/23 C12p-01*

79 as 901576 E(DE FR GB NL)

01034)

★ D16 04067 D/04 ★EP --20-961

organisms detection apparatus - with interchangeable bottles aps for liquid and solid nutrient media

OFFMANN-LA ROCHE AG 20.06.79-CH-005759

.01.81) C12m-01/28

80 as 102505 (13pp39) (G) DE2806902 US3783106 US3783104 59902 FR2381103 E(AT BE CH OE FR GB IT LI NL)

ratus for the detection of microorganisms includes a first , made of glass or plastic, with a screw or bayonet cap ining a liquid nutrient medium. A body fluid such as blood can pped in it by piercing the cover.

er incubation, the bare cap can be replaced by one with an ned cylindrical solid nutrient medium. After shaking ttedly the incubation is continued. At the end, the cap with the nutrient medium and its culture can be applied to a smaller port bottle and transported to the laboratory for analysis..

s provides a safe combination of liquid and solid nutrient media alysis.

D16 02101 D/03 = EP --21-009

ophilised compsn. contg. dextran. - and pharmaceutical or ostic reagent, giving hard, abrasion resistant mouldings

ASF AG 21.06.79-DE-925009

*4 S03 (07.01.81) *DE2925-009 A61k-09/14 G01n-33/50 + A61k-47*

80 as 102713 (7pp1251) (G) NO-CITNS. E(AT BE CH DE FR GB LU NL SE)

osn. consists of a co-lyophilisate of a material (A) and dextran opt. together with other auxiliaries. (A) is specifically an rtical reagent or a pharmaceutically-active cpd. These sns. are made by filling an aq. soln. contg. (A), (B) plus iaries into moulds, then freeze-drying..

e compsns. are useful as diagnostic agents and maceuticals. Unlike normal lyophilisates, they are hard and sion resistant and can be used to formulate sensitive cpds. such oteins and enzymes as solids. If not excessively dry they can be compressed without disintegration to give tablets with a slower speed of dissolution than the unpressed material.

EBAR ★ D16 04090 D/04 ★EP --21-064

Composting organic material in rectangular bed - with agitator carriage moved through bed to throw material

EBARA CORP 11.07.79-JP-087576 (26.05.79-JP-065249)

(07.01.81) C05f-09/04

24.05.80 as 102914 (38pp295) (E) FR1302793 US3881707 CH-491796 CH-496600 GB-521894 E(NL)

Organic materials are held in a rectangular bed where they form a composting layer. An agitating carriage is moved through the bed in a zig zag path to throw the materials through the air towards an outlet end of the bed. After the carriage has been moved through the bed, additional organic material is introduced at an inlet end.

Pref. the floor of the bed is perforated to allow air to reach the organic material. Pref. the agitator comprises a rotating shaft with radial blades..

The apparatus composts municipal waste, organic sludge, or excretions from stock farming. The agitator gradually advances the material through the bed while the material composts.

KALI D16 84516 C/48 = EP --21-129

Pancreatin pellets prodn. - by compression of a mixt. of pancreatin powder and a solvent in a string press (PT 30.10.80)

KALI-CHEMIE AG 08.06.79-DE-923279

*B04 + P33 (07.01.81) *DS2923-279 A61k-37/54 C12n-09/94 + A61k-09/16*

31.05.80 as 103046 (10pp367) (G) NO-CITNS. E(AT BE CH DE FR GB IT LI LU NL SE)

Prodn. of pellets contg. pancreatin (I) comprises extruding a mixt. of powdered (I) and an enzyme-compatible solvent, opt. while cooling; dividing the extrudate into small sections; drying; and processing the prod. by known methods..

Medicaments contg. the pellets are claimed. The process is economic, environmentally acceptable, and is capable of producing pellets with a wide range of sizes contg. more than 80% of (I).

INTT ★ D16 04117 D/04 ★EP --21-179

Selective inactivation of protease in commercial alpha-amylase - by controlled heating of aq. soln. with buffer, used as bread preservative

DEUT ITT IND GMBH 08.06.79-US-046876

(D11) (07.01.81) A21d-08/04 C12n-09/26

06.06.80 as 103139 (92pp478) (E) NO-CITNS. E(AT BE CH DE FR GB IT LI LU NL SE)

In a mixt. of protease (I) and alpha-amylase (II), the (I) is selectively inactivated as follows; (a) the mixt. is adjusted to pH 5-7; (b) mixt. is buffered with a buffering agent at a concn. less than 0.5M; and (c) mixt. is heated to 40-75 deg. and left at this temp. for 15-30 min..

The prod. is heat-stable, and has no (I) activity but a controlled degree of (II) activity. The prepd. (II) is useful in preventing the age-firming of bread and other bakery prods. so that their life is extended (commercial (II) is not suitable).

ALKU D16 75366 C/43 = EP --21-247

Alcohol removal from fermented drinks - by dialysis at low differential pressure

AKZO GMBH 27.10.79-DE-943518 (15.06.79-DE-924283)

*(07.01.81) *BE-883-829 B01d-13 C12g-03/08 + C12h-01/16*

11.06.80 as 103247 (+07.09.79-DE-936164) (40pp367) (G) US2122761 FR2333546 GB1177126 FR1585376 GB1079517 DE2339206 E(AT BE CH DE FR GB IT LI LU NL SE)

Prodn. of fermented drinks (e.g. beer or wine) with a reducedalcohol content is carried out by dialysing a conventionally produced fermented drink at a differential pressure of less than 5, esp. less than 0.1 bar..

Dialysis is more selective than reverse osmosis (cf. DT2135938), so that alcohol can be removed without significantly altering the flavour of the drink.

THOM ★ D16 04146 D/04 ★EP --21-257

Cell culture on solid surfaces - provided by packing material with low liq. retention, esp. for interferon prodn.

THOMAE K GMBH 17.04.80-DE-014814 (28.06.79-DE-926091)

B04 (07.01.81) C12m-03 C12n-05 C12p-21

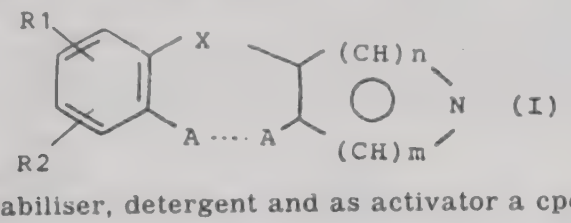
12.06.80 as 103261 (22pp367) (G) FR1598245 FR2311845 DE2300567 CH-525959 DE2320885 US3740321 OE2031768 E(AT BE CH DE FR GB IT LI LU NL SE)

Surface culture of eukaryotic cells for prodn. of culture-dependent substances (esp. interferon) is carried out using a culture surface formed by a packing material (I) shaped in such a way that less than 8% of the culture medium in the void space is retained after draining the medium..

(I) provides a high surface area while allowing adequate drainage and rinsing between process steps.

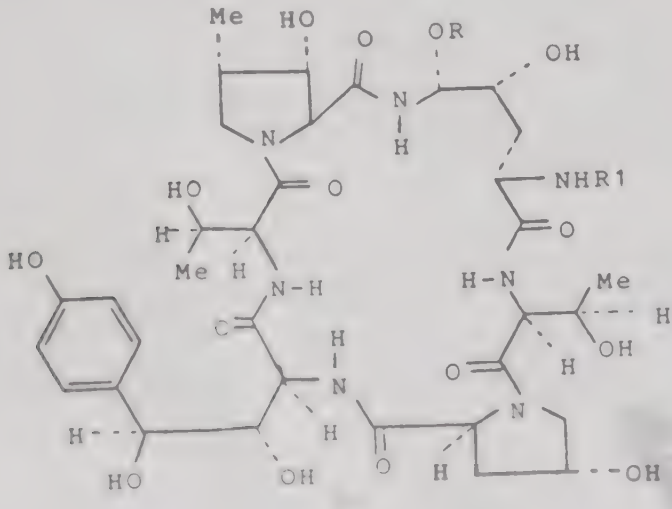
BOEF ★ D16 04169 D/04 ★EP --21-311
Cholesterol oxidase prodn. by fermentation - using high-yielding Streptomyces and/or Arthrobacter strains
BOEHRINGER MANNHEIM GMBH 20.06.79-DE-924875
B04 (07.01.81) C12n-09/04
16.06.80 as 103354 (11pp367) (G) FR2330766 J51067786 FR2047147
14Jnl.Ref E(AT BE CH DE FR GB IT LI LU NL SE)
Prodn. of cholesterol oxidase (I) comprises culturing Streptomyces griseofuscus DSM 40191 (ATCC 23916), S. hygroscopicus DSM 40771 (ATCC 10976), S. acidomyceticus DSM 40798 (ATCC 11611) and/or Arthrobacter paraffineus USM 312 (ATCC 15591), and isolating (I) from the culture supernatant and/or the cells..
(I) is used as a reagent for cholesterol determn. in body fluids.
Theindicated microorganisms give high yields of (I), even in the absence of specific inductors.

BEHW D16 02171 D/03 =EP --21-407
Reagent for detecting cpds. with peroxidase activity - esp. haemoglobin in urine, contains pyridine deriv. as accelerator
BEHRINGWERKE AG 29.06.79-DE-926271
*B04 J01 S03 (S05) (07.01.81) *DE2926-271 C12q-01/28 G01n-33/52*
24.06.80 as 103567 (10pp1251) (G) DE2363344 DE2460903 E(BE DE FR GB IT NL)
Compsn. for improving the sensitivity of detection of cpds. with peroxidase activity comprises, or contains, a heterocycle of formula (I), or its salt.
(X is CH2, CHR1, CR1R2, CO or a direct bond;
m and n are each 0-3, but must total 3;
when X is CO or a bond, each A is H, and when X is CH2, CHR1 or CR1R2, they are each H or together a bond between the two rings;
R1 and R2 are H, halo or 1-4C alkyl).
Diagnostic agents consisting of a carrier, colour former,



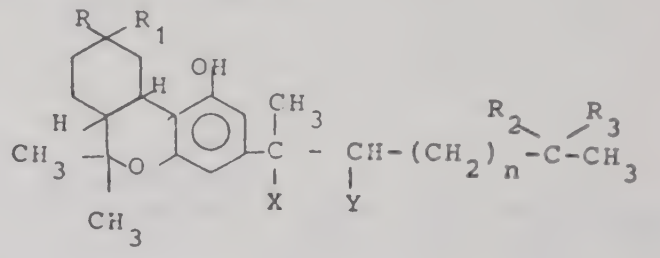
hydroperoxide, stabiliser, detergent and as activator a cpd. (I) are also new..
The diagnostic agents are esp. useful for detecting occult blood in urine and faeces. (I) are more effective than known accelerators such as vinylpyridines and permit detection of 0.03 mg haemoglobin per l. urine (i.e. 1-2 erythrocytes per microl).

ELIL D16 90141 C/51 =EP --21-685
Factor H of antifungal antibiotic A-30912 and its homologues - prepd. by treatment of Enchinocandin B or factor A with alkanol under acid conditions
ELI LILLY & CO 01.02.80-US-117739 (08.06.79-US-046875)
*B02 C02 (07.01.81) *BE-883-593 C07c-103/52 + A61k-37/02*
06.06.80 as 301913 (50pp395) (E) 2.Jnl.Ref E(DE GB LU NL SE)
Factor H of antibiotic A-30912 (or A-30912H) and derivs. of formula (I) are new:
(R1 is linoleoyl or stearoyl;
R is 1-6C alkyl;
with the condition that when R is methyl then R1 is linoleoyl)..
Cpds. (I) are antifungal antibiotics (see also BE-883592). Factor H of antibiotic A-30912 (i.e. (I) where R1 is linoleoyl and R is methyl) has MIC microg/disc for Candida albicans (1.25) and Trichophyton mentagrophytes (0.078). On agar MIC for Plastomyces dermatitidis and Histoplasma capsulatum is 100 microg/ml.



ICIL D16 91082 B/50 =G
Composite magnetic particles for immunoassay - are co with magnetic material and biologically active substance
IMPERIAL CHEM INDS LTD 30.07.76-GB-031839
*B04 J01 K08 + P73 (S03 S05) (21.01.81) *US4177-253 + B*
19.07.77 as ------ (8pp945)
Composite magnetic particles each comprise (A) a core less than 2.5 g/cm3 having (part of) its surface coated with material and (B) a component which is mechanically ent the core or is physically or chemically attached to the core the coating or in which the core is mechanically entrappe low mol. wt. organic cpd. or naturally occurring or polymer.
Each core is pref. a thermoplastic or hollow glass sp magnetic material is e.g. Ni and (B) is esp. biologically acti protein, antibody, antigen or antibody-antigen complex.
The particles are used e.g. for locating a drug at a desire in a living organism, for affinity chromatography immunoassays, partic. radioimmunassay using tritium.

ELIL D16 86592 Y/49 =GE
(1)-Hydroxy-(6,6)-dimethyl-hexahydro-(9H) dibenzo (b, derivs. - are analgesics prepd. by oxygenation of 3-alkyl si with Bacillus cereus
ELI LILLY & CO 09.06.76-US-694512
*B02 (21.01.81) *BE-855-347 C07d-311/80*
01.06.77 as 023302 (8pp937)
Dibenzopyran derivs. of formula (I) are prepd. by oxygena penultimate C of the alkyl side chain of 1-hydrogen-9-keto dibenzo (b,d) pyrans or 1,9 dihydro- 3-alkyl-dibenzo(b,d)py fermentation with microorganism with Bacillus cereus.
Specifically claimed cpds. include (+-)trans-1-hydroxy dimethyl leptyl)-6,6-di bthyl-6,6a,7,8,10,10a-hexi mydro-9H- (b,d)pyran-6',9-dione.
In (I) X and Y are either both H or one is H and the other of R and R' and one of R2 and R3 is H, the other is hydro when taken together the pairs R and R1 and R2 and R3 f oxygen of a ketone gp.; n is 1,2,3 or 4.
(I) are used as analgesics.



ENGH D16 80495 A/45 =GB
Removal of aromatics from paraffinic hydrocarbon(s) - b with aq. hypochlorite using ruthenium di:oxide as catalyst
ENGELHARD MINERALS CORP 29.04.77-US-792176
*H04 (21.01.81) *DE2818-823 C07c-07/14 C07c-09*
25.04.78 as 016190 (7pp924)
Mixt. comprising (a) a major amt. of satd. aliphatic pa hydrocarbons and (b) cpds. other than component (a), is tr contacting with an oxidn. system comprising at stoichiometric amt. (based on (a)) of an aq. hypochlorite sol presence of a low oxidn. state Ru cpd. or species convertib higher oxidn. state Ru cpd. or species.
The cpds. (b) are selectively oxidised to CO2 and/or water oxygenated cpds. The satd. hydrocarbons having a reduced of component (b) are then sepd. off from the resulting reacti Pref. (a) are n-paraffinic hydrocarbons and (b) are a hydrocarbons. Pref. Ru cpd. is the dioxide.
The obtd. prods. are useful as substrates or feedstock prodn. of single cell proteins.

PLMA- D16 04792 A/03 =GB
Aerobic, thermophilic microbial decomposition of waste - suspension, esp. with enzyme addn. and inoculation with activated sludge
PLM AB 07.07.76-SE-007763
*(21.01.81) *DE2730-532 + C02f-11/02*
06.07.77 as 028233 (6pp931)
Microbially degradable material is degraded in the aq. p treating a slurry of solids content 15 wt.% or less contg. par the material of size 50 mm. or less.
The method comprises adjusting the pH of the slurry to 12 then degrading the material mechanically and by the a aerobic thermophilic microorganisms in the presence of O2 deg.C for 10 days or less.
An active sludge is formed contg. the microorganis material of particle size 10 mm. or less. The untreated s inoculated with the activated sludge, and then dewater process is esp. used in the treatment of industrial sludge o from a waste water treatment plant.

D16 73096 A/41 = GB 1583-304
ste conversion to protein by hydrolytic process - together on. of nutrient media for cultivating yeasts and filamentous

OIN GYOGYSZER 25.03.77-HU-CI1581
*(21.01.81) *DE2812-436 + C12n-01/22*
s 011775 Add to 1550644 (5pp931)
ation media for culturing a fungal microorganism is prepd. rolysing comminuted waste vegetable matter contg. harides in a heated dil. aq. soln. of an organic or inorganic n separating the liq. phase and adjusting it to pH 3.0-6.0 and enting with inorganic sources of nitrogen and phosphate.
lid phase obtd. after the acid treatment is heated with a dil. d the solid and liq. phases obtd. sepd. The liq. phase is to ppte. protein wbich is sepd. and recovered. The ng liq. phase is adjusted to pH 3.0-6.0, then supplemented rganic sources of nitrogen and phosphate.
q. phases of each step are opt. combined and used for ng the yeast Candida tropicalis for animal consumption.

★ D16 04517 D/04 ★J5 5147-225
for allergic disease - contains allyl sulphatase B of human

CHIDA PHARM KK 04.05.79-JP-055045
(17.11.80) A61k-37/48
as 055045 (6pp69)
for allergic diseases contains allylsulphatase B originated man body as main component. Allylsulphatase B purified uman placenta has excellent antiallergic action and the ce is useful as pharmaceutical.
example, human placenta (40kg) freezed and preserved at -20 mediatedly after childbirth was homogenised, into the mixt. ied pure water (20 l), the mixt. was adjusted with 16 N acetic pH 5.0; and ethanol (15 l) and chloroform (3 l) were added into vith ice-cooling. After stirring, the mixt. was subjected to gal separation to give supernatant liquor (50 l). Cold acetone ded into the supernatant liquor to give final concn 40%, nt mixt, was subjected to centrifugal sepn to give ppte, the as dissolved in 0.02M Tris hydrochloric acid buffer soln. (pH soln. was subjected to dialysis for a night. Allylsulphatase B sorb by CM-Cefadex coloum (10x38 cm) equilibriumed with fer soln., adsorbed allysulphatase B was eluated with the uffer soln. containing 0.125M sodium chloride, and active was subjected to ultraconcentration. Allylsulphatase A was d as non-absorbed fraction and sepd from allylsulphatase B.

★ D16 04540 D/04 ★J5 5147-298
tic AM-3696B - has antibacterial activity against Gram-e, anaerobic and penicillin-resistant strains of bacteria
ASATO RES INST 07.05.79-JP-056204
*(17.11.80) A61k-35/74 C07g-11 C12p-01/06 C12r-01/**
as 056204 (7pp33)
tic AM-3696B (I) is a white powder (as hydrochloride), of tary analysis; C 46.4-48.4%, H 5.15-5.37%, and N 4.60-4.85%; 220-270 deg.C; specific optical rotation: at 22 deg.C sodium D 114 deg. to -118 deg. (c 2.0, water). Spectral data are also i.
soluble in water, sparingly soluble in DMSO and insoluble in ol, acetone, ethyl acetate and benzene. (I) gives positive reactions to Rydon-Smith reaction, anisaldehyde-sulphuric nd potassium permanganate-bromophenol blue, and negative reactions to anisidine, ninhydrin, and Sakaguchi reaction. (I)
ows antibacterial activity against Gram-positive bacteria, in-resistant strains and anaerobic bacteria. The LD50 value e is greater than 300 mg/kg (i.p.). (I) is effected by e.g. ting Pseudonocardia azurea AM-3696 in a medium contg. a C ource and an inorganic cpd. at 20-40 deg.C for 1-9 days.

★ D16 04649 D/04 ★J5 5148-063
ed agar-gel resistant to loss of pigment - prepd. by heating el soln. contg. caseinate pigment and lactone
ODO NYUGYO KK 02.05.79-JP-053462
11.80) A23l-01/04
as 053462 (3pp42)
ured agar-gel (I) is prepd. by adding caseinate and lactone to r-soln., adding pigment, then heating so that the pigment is ed into casein.
n agar gel coloured by other known method is cut into small d mixed in aq. soln. pigment in it diffuses out resulting in its urisation. This decolourisation can be prevented by the it method. The pref. lactone is glucono delta lactone.

MITU ★ D16 04652 D/04 ★J5 5148-083
Mutant strain comprising microorganism of genus Nocardia - in which androstane type cpd. decomposing enzyme is inactivated or has activity decreased
MITSUBISHI CHEM IND KK 04.05.79-JP-055050
(18.11.80) C12n-01/20 C12n-15 C12p-33 C12r-01/36
04.05.79 as 055050 (8pp108)
Mutant strain which is a microorganism of the genus Nocardia and in which androstane type cpd.-decomposing enzyme is inactivated or its activity is decreased is described. Mutant strain can be obtd. by subjecting a microorganism of genus of Nocardia to mutation treatment, and this mutant strain can accumulate a large amount of androstane type cpd.
The mutant strain can be obtd. by subjecting wild strain to conventional mutation treatment such as UV irradiation, gamma-ray irradiation, treatment with N-methyl-N'-nitro-N-nitrosoguanidine or ethylmethane-sulphonate, etc., and then obtaining such strain which grows on conventional medium but does not grow on a medium contg. as only carbon source androstane skeleton-having cpd. such as androst-4-ene-3,17-dione (4AD). Examples of such mutant strains are MCI-0710 (FERM-P 4075) and MCI-0711 (FERM-P 4076).

MITN ★ D16 04653 D/04 ★J5 5148-084
Cultivation of coenzyme/Q producing yeast or bacteria - in medium contg. choline, methionine or a betaine to increase coenzyme yield
MITSUBISHI GAS CHEM IND 08.05.79-JP-056054
*B05 (18.11.80) C12n-01/20 C12p-07/66 C12r-01/**
08.05.79 as 056054 (11pp33)
Examples of the bacteria are Pseudomonas extraquens, Pseudomonas rosea, Microcyclus aquaticus, Microcyclus ebruneus, etc. Suitable yeasts are Candida curvata, Candida humicola, Torulopsis capsuligenus, Rhodotolura glutinis, Rhodotolura rubra, Cryptococcus albidus, etc. The choline is added as choline, choline HCl, or choline citrate. Examples of the betaine cpd. are glycine betaine, gamma-butyrobetaine and their salts (e.g. HCl).
Pref. choline, methionine and betaine cpd. are added in an amt. of 0.3-0.01w/w.%. The cultivation is carried out in a medium contg. a C and N source, an inorganic cpd. and opt. a vitamin or an amino acid at 20-45 deg.C and pH 2-6.

KIKK ★ D16 04654 D/04 ★J5 5148-087
Yeast prodn. by fermentation in medium contg. acetate ions - for use in making soy sauce and miso
KIKKOMAN CORP 08.05.79-JP-055306
(18.11.80) A23l-01/20 C12n-01/38 C12p-07/06 C12r-01/85
08.05.79 as 055306 (6pp42)
Yeast (I) is produced by fermenting it in a medium contg. more than 0.05 w/v %, e.g. (0.1-2.0 w/v%) acetate ion (II). (I) is suitably used for prodn. of soy sauce and miso (a kind of pasty seasoning prepd. by fermentation of soy bean), etc. (I) produced by the present method has resistance to the cpds., that are produced during fermentation.
Examples of (I) are Saccharomyces rouxii, (IFO 0495, 0504, 0506, etc.), Torulopsis etchellsii (IFO 1229) and Torulopsis versatilis (IFO 0652, 1231). (I) is fermented in a medium contg. usual carbon source, nitrogen source, inorganic slats and other nutients. For the prepn. of soy sauce and miso, salt is added to the medium in a conc. 6-18 w/v %. As (II), acetic acid, acetic acid anhydride, glacial acetic acid, Na acetate, K acetate and vinegar are used.

FUJF ★ D16 04655 D/04 ★J5 5148-088
Prepn. of microcapsules contg. asparaginase - comprises emulsifying or dispersing asparaginase aq. soln. in polyvalent isocyanate (adduct) soln. in water-immiscible organic solvent
FUJI PHOTO FILM KK 02.05.79-JP-054301
B05 (18.11.80) C12n-09/82 C12n-11/04
02.05.79 as 054301 (3pp52)
The microcapsules are used in the treatment of asparagine-requiring tumours, e.g. lymphatic leukemia, malignant lymphosarcoma, since the capsules release asparaginase in the tumour cells to decompose asparagine which is required for the growth of the tumours (enzymatic therapy).
The isocyanates are diisocyanates or dithioisocyanates (e.g. m-phenylene diisocyanate, p-phenylene diisocyanate, etc.), triisocyanates (e.g. 4,4',4-triphenylmethane triisocyanate, etc.) tetraisocyanates (e.g. 4,4'-dimethyl diphenylmethane 2,2',5,5'-tetraisocyanate). The adducts are those with polyvalent amines, carboxylic acids, thiols, hydroxy cpds., and epoxy cpds., of which at least two isocyanate gps. remain free. The organic solvent are aromatic solvents (e.g. toluene, xylene), esters, (e.g. EtOAc, BuOAc) and chlorohydrocarbons (e.g. trichloroethylene, CCl4).

MATU ★ D16 04656 D/04 ★J5 5148-089
Complexes of enzymes and redox cpds. - linked by covalent bonds and used for colorimetric analysis and to make analytical enzyme electrodes
MATSUSHITA ELEC IND KK 09.05.79-JP-057325
J04 (18.11.80) C12n-11/06
09.05.79 as 057325 (3pp42)
A complex (I) between one or more oxidation-reduction enzymes (II) and one or more redox cpds. (III) is new, where (III) has conductivity of (II)-electron and (II) and (III) are covalently bonded. (I) is used as a reagent for colourimetric analysis and enzyme-electrode for analysis, of the concn. of a substrate of (II).
(III) is easily fixed on (II), using a cross-linking agent having two functional gps. per molecule. Examples of (II) are glucose oxidase, L-amino acid-oxidase and xanthin oxidase, which oxidise quinone, thionine, and methylene blue, respectively, in the presence of electron-conductive (III).

INOZ ★ D16 04657 D/04 ★J5 5148-090
Prepn. of fixed enzyme composite - by adding magnetic powder to enzyme-contg. mixt., magnetically agitating and then magnetically collecting powder
INOUE JAPAX RES INC 00.00.80-JP-008481 (24.09.76-JP-114858)
B04 (18.11.80) C12p-01
24.09.76 as 008481 /80Div ex114858/76(3pp42)
Magnetic powder (I), opt.supporting enzyme (II) is added to an enzyme-contg. mixture, to disperse, transfer or collect (I) in the mixture by magnetic power. After (I) not supporting (II) is added into the mixture, (I) holds (II) on the surface of (I) or between (I)-particles. Thus, after the mixing, (I) supporting (II) is collected with use of magnetic power and used for prodn of compounds by the reaction with (II), where the movement of (I) supporting (II) is controlled with magnetic power.
The present method makes it easy to fix (II), control the reaction, collect the used (II) and reuse it.

DNIN ★ D16 04658 D/04 ★J5 5148-091
Red pigment prodn. by Monascus purpureus cultivation - giving high yields of prod. usable in foodstuffs
DAINIPPON INK CHEM KK(DNII) 08.05.79-JP-055319
E24 (18.11.80) A23l-01/27 C12p-01/02 C12r-01/64
08.05.79 as 055319 (5pp42)
A red pigment (I) is produced by cultivation of Monascus purpureus (II). (I) has been used in several foods in China, Taiwan, and other Asian countries and is known to be safe. The efficiency of (I)-prodn. of (II) is remarkably high.
(II) is anascus urpureus M-023. (I) is produced by cultivation of (II) on a pasty medium, prepd. by soaking rice, wheat, barley, bread, etc. in water then steaming it at 25-45 (32-37) deg.C, for 5-15 (7-10) days. The prod. is mixed with 2-20 (4-6) times weights) of ethanol-water mixt. (wt. ratio of ethanol/water is 95/5-50/50), and 0.01-0.05 times wt. of such amino-contg. cpd. as protein, peptide, amino acid, at room temp. to 80 deg.C for 1-24 hrs. (I) is collected from the filtrate or supernatant of the mixt. by distn. The pH of the mixt. of the cultivation prod., ethanol-water mixt. and amino-cpd. should be adjusted to 7.0-10.0 e.g. with NaOH, KOH or Na2CO3.

AJIN ★ D16 04659 D/04 ★J5 5148-092
High yield L-Arginine prodn. - by cultivation of Brevibacterium or Corynebacterium species resistant to aspartic acid analogue(s)
AJINOMOTO KK 02.05.79-JP-053420
B05 E16 (18.11.80) C12p-13/10 C12r-01/13
02.05.79 as 053420 (5pp42)
Aspartic acid analogue suppresses the growth of the microorganism, but the suppression is lowered in the presence of aspartic acid.
The microorganism is derived from such a stock as Brevibacterium divaricatum ATCC 14020, Bre. flavum ATCC 14067, Bre. lactofermentum ATCC 13869, Corynebacterium acetoacidophilum ATCC 13870, etc. by treating the stock with N-methyl-N'-nitro-N-nitroso guanidine-soln. (250 micro g/ml) at 30 deg. C for 30 min., and screening the stock having resistance to aspartic-acid analogues.
The microorganism is cultivated in a medium contg. a C source e.g. glucose, sucrose, starch, organic acid, alcohol, etc. a N source, e.g. ammonium salt, ammonia gas, urea, etc. and other nutrients, at pH 5-9 at 24-37 deg.C for 2-7 days.

AJIN ★ D16 04660 D/04 ★J5 5148-093
High yield L-arginine prodn. - by cultivation of Brevibacterium or Corynebacterium species resistant to argininol
AJINOMOTO KK 02.05.79-JP-053421
B05 E16 (18.11.80) C12p-13/10 C12r-01/13
02.05.79 as 053421 (3pp42)
The microorganism is derived from such a stock as Brevibacterium divaricatum ATCC 14020, B. flavum ATCC 14067, B. lactofe ATCC 13869, Corynebacterium acetoacidophilum ATCC by treating the stock with N-methyl-N'-nitro-N-nitroso soln.

KYOW ★ D16 04661 D/04 ★J
L-Glutamine prodn. - by cultivation of Corynebacteriu resistant to trimethoprim, mono:fluoro-acetic acid sodiu and/or aza:serine
KYOWA HAKKO KOGYO KK 07.05.79-JP-054737
B05 E36 (18.11.80) C12n-01/20 C12p-13/14 C12r-01/15
07.05.79 as 054737 (4pp42)
L-glutamine is used for prodn. of medicines, and is prod high yield.
The microorganism is derived from a stock belo Corynebacterium by treating the stock with e.g. nitrosog ethyl methyl sulphate, or nitrous acid. Examples of Corynebacterium glutamicum TP-9 (resistant trimethoprim), MFA-4 (resistant against monofluoro ace TMF-1 (resistant against both trimethoprim and monofluo acid), NaF-8 (resistant against sodium fluoride), etc.
Typically, C. glutamicum ATCC-14752 was incubated on boullion slant at 28 deg.C overnight and it was suspende malate buffer in the mycelium-conc. 10 power 7-10 pow Nitrosoguanidine wad added to the suspension in 200 mg after 60 min., the mycelium collected by centrifugatio suspension was cultivated.

KYOW ★ D16 04662 D/04 ★J
L-Proline prodn. - by cultivation of Corynebacterium, Arthi Brevibacterium or Microbacterium species resistant to analogues
KYOWA HAKKO KOGYO KK 04.05.79-JP-054984
*B03 E13 (18.11.80) C12p-13/24 C12r-01/**
04.05.79 as 054984 (5pp42)
(II) is derived from native stocks by e.g. such as irradiation or X-rays, or treatment with such a reagent as nitroso gua ethyl methane sulphonate. Typically the microorganism w as follows, the native stock is cultivated on a boullion-sla night, and after washing with tris-malate buffer, it was susp the same buffer contg. 1 mg/ml of nitroso guanidine at 28 d 30 min. The mycelium in the suspension was washed with t buffer, and then cultivated on an agar slant con dehydroproline.
Several microorganisms able to produce (I) are known, demand addn. of specific nutrients, specific metal salts, am ion or chlorine ion, and the cultivation period is so prolonged by the addn. of such substances. (II) produces (I yield without the addn. of these specific substances.

WAKP ★ D16 04664 D/04 ★J5
Clinical analysis of amino-transferase activity - using halo:phenol and 4-amino-antipyrine
WAKO PURE CHEM IND KK 09.05.79-JP-056519
B04 J04 (18.11.80) C12q-01/52
09.05.79 as 056519 (6pp42)
Used for clinical analysis of e.g. asparatate aminotransfe and alanine aminotransferase (V) in serum. The activity is with high sensitivity.
Pyruvic acid is formed by the reaction between alanine ar ketoglutaric acid using (V), or oxalacetic acid is formed reaction between aspartic acid and alpha-ketoglutaric ac (IV), and then pyruvic acid is obtd. from oxalacetic acid activity of oxalacetic acid-decarbonic acid-enzyme, (2) pyru is decomposed to acetyl phosphoric acid and H2O2, by the ac pyruvic acid-oxidase, and (3) the amt. of H2O2 is determ colourimetry of the oxidn-condensn. prod. formed by the re H2O2, (II) and (III) in the presence of peroxidase.

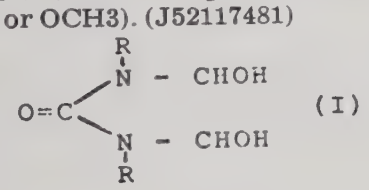
MATU ★ D16 04817 D/04 ★J5
Enzyme electrode - comprises enzyme of xanthine oxid nucleoside phosphorylase, redox cpd. and electroco substance
MATSUSHITA ELEC IND KK 08.05.79-JP-055983
J04 (D13) (20.11.80) C12q-01 G01n-27/40
08.05.79 as 055983 (3pp50)
Enzyme electrode consists of enzyme, redox cpd. (e.g. chl various redox polymers) and electroconductive substar carbon, metal carbide, noble metal or electroconducti oxide). The enzyme comprises xanthine oxidase and n phosphorylase, and is unitedly fixed together with the redo and the electroconductive substance.
The enzyme electrode has electrochemical activity to a s undergoing distinctive catalytic effect by enzyme, determine rapidly and simply the concn. of substrate, concn. of inosine and hypoxanthine, and is useful for estim freshness of food such as fish. The enzyme electrode

y used.

D16 04871 D/04 ★J5 5149-205
romoting and sweetness-intensifying agent for citrus fruit - extract obtd. from hypha-cultured prod. of Basidiomycetes ushrooms
SHOKUKIN KOGYO 10.05.79-JP-057367
13 (20.11.80) A01g-07/06 A01n-65
s 057367 (12pp5)
louration-promoting and sweetness-intensifying agent extract which is obtd by extracting the hypa-cultured prod edible mushrooms belonging to Basidiomycetes, as the ingredient.
mushrooms showing highest activity are Cortinellus e'). Practically Cortinellus is cultured in solid medium or edium for forming hypha and after the culture the whole prod is extracted without separating the hypha and the medium to recover the metabolic prods of the hypha and the ingredients in the hypha. The extn is effected with water or edium contg a small amt of organic solvent, acid or base.

★ D16 04914 D/04 ★J5 5149-297
dial antibiotics herbicidin(s) C, E, F and G - prepd. from of Streptomyces strain
KYO KK 09.05.79-JP-056587
C03 (20.11.80) A01n-33 A61k-35/74 C07g-11 C12p-01/06 C12r-
as 056587 (10pp)
tic herbicidins C, E, F and G are novel. All are colourless, C occurring as crystalline powder and E and F as needles. C oses 165-169 deg.C, F at 150-154 deg.C, G at 142-146 deg.C and s at 172-173 deg.C. The % CHN elemental analyses are:- C: 82, 15.94; E: 50.50, 5.58, 13.12; F: 51.58, 5.46, 13.08; and G: 50.67, 3.43, respectively. Characterising UV, IR, NMR, mass l, silica gel chromatography and solubility data are given.
erbicidins are produced by cultivating Streptomyces strains overing from culture broth. Suitable strain is S.saganonensis or its mutants.
herbicidins have antibacterial and herbicidal activity e.g. IC value of 100-200 mg/l against Anacystis indulans. They are acids and alkalis.

D16 80613 Y/45 = J8 0050-679
posing glyoxalic resin from fibre-processing plants - by using on source in culturing of bacteria of Aeromonas
ARAY KK 25.03.76-JP-033885
(D15) (19.12.80) *J52117-481 C12r-01/* + C02f-03/02 C12n-01/20
as 033885 (4pp5)
comprises culturing the bacteria of Aeromonas in a culture n contg. glyoxalic resin as the carbon source. The pref. al stock is Aeromonas KP-10 (FERM-P 3023). The culture is ed at 20-37 (30) deg.C at pH 6.0-8.0 (7.0) in a culture medium glyoxalic resin 0.05-0.5 w/w%. The utilisation of glyoxalic an be promoted under the condition that oxygen can be easily ied by the bacteria, and the decomposition can be completed ays.
xalic resin used is the condensate of glyoxal-amide adduct condensate with a urea cpd. The monomer is of formula (I) R is H, CH3 or OCH3). (J52117481)



(I)

D16 10617 S/06 = J8 0051-547
ne prepn by fermentation
INOMOTO KK 27.02.69-JP-014776
5 E16 (24.12.80) *FR2033-119 + C12n-01
9 as 014776 (4pp22)
of L-lysing comprises the cultivation of a microorganism of Brevibacterium or Micrococcus glutamicum nebacterium glutamicum) capable of producing L-lysine from acid in a culture medium contg. acetic acid as the main C e.
cultivation is conducted with the addn. of acetic acid and onium acetate or acetic acid and ammonia continuously from art of the cultivation in such an amt. that the acetic acid concn. culture medium is kept under 1.5 % and pH value maintained -8.5/
roved yield of L-lysine is obtained. Example of the organsm is a mutant from Brevibacterium flavum No.2247 C 21129), etc.

MITU D16 70229 V/40 = J8 0051-548
Aerobic Protozoa cultivation - in alcohol distn. vat residues-additional nutrients medium
MITSUBISHI CHEM IND KK (MITS) 30.09.72-JP-097647
(24.12.80) *J49054-582 + A23k-01 C12n-01/10
30.09.72 as 097647 (4pp)
Aerobic Protozoa was cultured in an alcohol distn. waste opt.with appropriate nutrients added.
In an example Glaucoma scintillans was precultured at 25 deg. for 48 hr in an alc. distn. waste contg. crude protein 6, crude fats 0.5, crude fibre 0.5, sol. N compds. 8, H2O 84, and others 1.4% 300,000 bodies/ml.The seed culture was planted to a 5 times dild. waste (pH 7.0) and aerobically cultured at 25 deg. for 96-120 hr; 1,200,000 bodies/ml. Bodies were collected by filtration, dried, and crushed; crude protein 67.4%, lysine 5.25, methioine 1.72, and digestability 95.4%. Colpidium campylum, Tetrahymena geleii, and T, vorax were also cultured in the same ways; 1,100,000, 1,000,000 and 1,050,000 bodies/ml were obtd. resp. (J49054582).

DAIN D16 46625 U/33 = J8 0051-549
Cytolytic enzyme purification - by precipitation of impurities from acid soln
DAINIPPON PHARM KK 24.10.72-JP-106538
B04 (24.12.80) *BE-793-826 + C12n-09/14 C12r-01/46
24.10.72 as 106538 (5pp)
The enzyme obtd. by cultivation of Streptomyces, is contaminated with proteases and is purified by adjusting the pH of its aq. soln. to 1.0-3.0 and the precipitated proteases filtered off.
The cytolytic enzyme inhibits the growth of microorganisms including those responsible for dental caries. (J49066883).

AGEN D16 71194 X/38 = J8 0051-551
Amylase and glucosidase enzymes - produced simultaneously by culturing Bacillus cereus strain using plant seeds as nutrient
AGENCY OF IND SCI TECH 01.02.75-JP-013856
(D17) (24.12.80) *J51088-690 + C12n-09/44 C12r-01/07
01.02.75 as 013856 (7pp)
Beta-Amylase and alpha-1,6-glucosidase-producing microorganism belonging to the genus Bacillus (e.g. Bacillus cereus var mycoydes FERM-P No. 2391) is cultivated in a culture medium contg. plant seeds, seed flake or their extracts (e.g. rapeseed, rapeseed flake, peanut, peel of peanut).
The yield of 1,6-glucosidase increases to 4-5 times when the microorganism is cultivated in a culture medium containing 5% of plant seeds. Beta-Amylase and alpha-1,6-glucosidase enzymes are used in the prodn. of maltose. (J51088690).

KURS D16 66308 W/40 = J8 0051-552
Immobilising ensymes in PVA - by addn. of boric acid or borax to an aq. soln. to cause gelatinisation
KURARAY KK 17.09.73-JP-105179
A96 B04 (24.12.80) *J50053-583 + C08k-03/38 C08l-29/04 C12n-11/04
17.09.73 as 105179 (2pp)
An aq. soln. of an enzyme and a PVA polymer is gelatinised by addn. of boric acid or borax to fix the enzyme in the PVA polymer. Thus, trypsin was dissolved in 0.05 M phosphate buffer (pH 7.5) contg. 20 wt.% PVA, having sapon. value of 98.5% and polymerisation deg. of 500 at 0.5 g/100g. gel. Boric acid was added to the soln. at 5 wt.% (w.r.t. PVA).
The resulting immobilised enzyme retained 70% activity of the standard soln. contg. an equiv. amt. of tryspin; and retained 40% activity after 20 repeated reactions.(J50053583).

MITU D16 49095 X/26 = J8 0051-553
Insoluble glucose-isomerase preservation - by drying at reduced pressure on solid carrier
MITSUBISHI CHEM IND KK 11.11.74-JP-129779
(24.12.80) *J51054-979 + C12n-11/08
11.11.74 as 129779 (4pp)
Glucose-isomerase is absorbed on a solid carrier and dried for 8-14 hours at 0-60 deg.C under reduced pressure (5-20mmHg) to preserve it without the decrease of its activity at room temp. (J51054979).

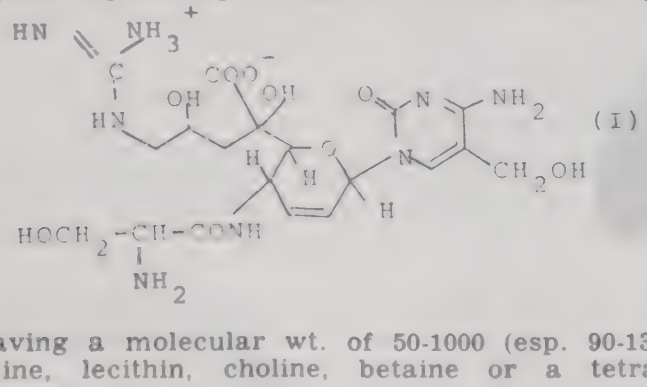
KURS ★ D16 05036 D/04 ★J8 0051-554
Assimilative decomposition of PVA - by culturing Enterobacter microorganism on medium contg. PVA
KURARAY KK 08.05.75-JP-055084
A14 (A35) (24.12.80) C12p-01
08.05.75 as 055084 (4pp22)
Microorganism of genus Enterobacter for example Enterobacter KP-9 (FERM No.3022) is cultivated on a culture medium containing polyvinyl alcohol or its oxidative decomposition prod. whereby the PVA compound is assimilated by the microorganism to decompose. (J51130578).

KURS D16 01160 Y/01 = J8 0051-555
Assimilation decomposition of polyvinyl alcohol in waste soln. - by culturing Aeromonas bacteria in the soln.
KURARAY KK 14.05.75-JP-057716
*A14 F06 (A35) (24.12.80) *J51133-475 C12r-01/* + C02f-03/34 C12p-01*
14.05.75 as 057716 (4pp)
Assimilation-decomposition of PVA is conducted by cultivating bacteria of Aeromonas series in culture medium having PVA and oxidative-decomposed PVA as carbon source. (Oxidative-decomposition refers to lowering of viscosity mean degree of polymerisation to less than 500 with hydrogen peroxide, persulphuric acid, etc. or lowering decomposed PVA colouring value to less than 40% of PVA colouring value by boric acid iodine colouring method.).
It is possible to easily decompose PVA in desised waste soln. after the use as warp sizing agent, also possible to treat PVA in aq. solns. (J51133475).

ELIL D16 12766 V/07 = J8 0051-556
Antibiotic A-2315 prepn - for use as positive active and antifungal agent
ELI LILLY & CO 31.07.72-US-276546
*B04 C03 (24.12.80) *NL7310-613 A01n-43/90 A61k-31/41 C07d-498/08 C12p-17/18 C12r-01/04*
31.07.73 as 086265 (11pp)
The antibiotic A-2315 (I) is prepd. by incubating Actinoplanes philippinesis NRRL 5462 for 2-6 d. at 20-40 deg.C in a medium of pH 6.5-7.3 with aeration, filtering the broth, and extracting the filtrate, e.g. with CHCl3. The crude product can be purified by chromatography. (I) has specific rotation (alpha D 27 of -132 deg. (concn. 0.375 in CH3OH) and a specific I.R. absorption spectrum. (J49055896).

REFO- D16 02620 W/02 = J8 0051-558
Novel vitamin B2 deriv - stable compd. prepd. from Schizophillum commune culture
RES FOUND PROD DEV (RESE) 25.10.72-JP-107471
*B02 (24.12.80) *J49066-893 + C07d-475/14 C12p-25 C12r-01/64*
25.10.72 as 107471 (6pp)
A novel vitamin B2 deriv. is produced from vitamin B2 reacted with cells or treated matters of Schiophillum commune. The deriv. is easily soluble in water and is more stable than riboflavin monoculeotide. The deriv. is identified by its R6 values on paper chromatographic mobilities on paper electrophoresis, and pH dependant changes in fluroescence intensity.
The microorganism is statically culuted at 30 deg.C for 30 days in a medium contg. glucose 5.0, peptone 2, meat ext. 3, KH2PO4 2. MgSO47H2O 0.5, and KCl 0.5 g with addn. of thiamine 0.0005 and riboflavin 200 mg in 1 l. The deriv. is extracted with 100 ml PhOH from 800 ml culture filtrate treated with 400 g (NH4)2So4. The extract was shaken with 100 ml Et2O and 10 ml water. The deriv. in aq. phase is purified by EtOH. (J49066893).

TAKE ★ D16 05082 D/04 ★NL 8003-591
Fermentative prodn. of mildiomycin antibiotic - using Streptoverticillium strain in presence of N methyl cpd.
TAKEDA CHEMICAL IND KK 21.06.79-JP-078917
C03 (23.12.80) C12p-17/16
20.06.80 as 003591 (10pp367)
Prodn. of mildiomycin (I) is carried out by culturing a (I)-producing microorganism of the genus Streptoverticillium in a medium contg. a N-methyl cpd. (II) in a concn. of at least 3 (pref. 4-200, esp. 7-50)mM.
The microorganism is pref. S. rimofaciens FERM-P 2549 (ATCC 31120). (I) is pref. a cpd. contg. at least one N atom substd. by 1-4 Me



gps. and having a molecular wt. of 50-1000 (esp. 90-130), e.g. trimethylamine, lecithin, choline, betaine or a tetramethyl tetramethylammonium cpd.
(I) is an antibiotic (antibiotic B-98891) useful as a fungicide for controlling mildew on plants, and as a miticide. Addn. of (II) increases the prodn. of (I), e.g. by a factor of 1.1-2.0.

ANTI- ★ D16 D/04 ★
Rifamycin-producing nocardia ICCF DZ2 505 mutant - nocardia lurida and nocardia species hybridisation ac rifamycin and 3-formyl rifamycin
INTR ANTIBIOTICE(INSC) 06.09.75-RO-083339
B02 (29.11.79) C12d-09

NICO- ★ D16 D/04 ★
Sheet cytology analyser - has tongued and grooved square sheets on a support
NICOLAU INST VIRUSO 01.02.75-RO-081323
B04 S03 (25.10.79) C12k-01 G01n-21/60

ANTI- ★ D16 D/04 ★
Streptomycin prepn. by bio-synthesis - with calcium asparagine or glutamine soln. addn. to culture medium manosido streptomycin formation
INTR ANTIBIOTICE 13.07.76-RO-086954
B03 (15.07.79) C12d-09/16

CONT- ★ D16 D/04 ★
Determining therapeutic compsn. compatibility with nasa cilia - by contact with bovine spermatozoa and estimat viability
INST CONTROL STATAL 10.12.75-RO-084157
B04 (20.10.79) C12k-15

ANTI= ★ D16 05138 D/04 ★S
Clostridium perfringens phospholipase C inhibitor - is culturing streptoverticillium mycoheptinicum strain, medicine
ANTIBIOTICS FERMENT 17.02.78-SU-581145
(15.05.80) C12d-13
17.02.78 as 581145 (3pp938)
Microbiological prodn. of Clostridium perfringens phosph inhibitor with high detoxification activity useful in ser includes culturing Streptoventicillium mycoheptinic microbial strain on nutrient contg. soybean or maize fl deg.C for 5 days. The culture medium is purified by passing a layer of anion exchanger in chloride form, then acidified 5.5, heated to 50-50 deg.C. and treated with ammonium su 55-60% saturation. After holding the mixt. for 18-20 hrs. at 4 The ppte is sepd. by centrifugation and the supernatant af and diafiltration is freeze dried and protease impuri removed to give final prod. Bul.18/15.5.80.

ASMI= ★ D16 05139 D/04 ★S
Microbiological prodn. of ribonuclease enzymes - incluc stage chromatographic sepn. of Penicillium brevico culture medium, followed by ultrafiltration and dialysis
AS USSR MICROORGANI 11.04.77-SU-473397
A97 B04 (18.05.80) C12d-13/10
11.04.77 as 473397 (3pp938)
Acid and alkaline ribonucleases are simultaneously ob Penicillium brevicompactum culture medium in high y purity using a simplified procedure which chromatography, ultrafiltration and dialysis. The prod. is food ind. (for the sepn. of RNA from protein-vitamin concen medicine and biochemistry (for polynucleotide synthe research and in RNA and protein structure investigation).
The chromatographic sepn. has three stages. In the first s culture medium is passed through medium basic anionite (exchange resin EDE-10P) and then through a strongly basic (pref.ion-exchange fibres TSM-A2) and the eluate is co ultrafiltration and then dialysed. In the second chromatography on carboxymethyl cellulose is used ultrafiltration and dialysis. In the third stage, the soln. is s two fractions by gel-chromatography on Sephadex G- fraction, contg. acid ribonuclease, is dialysed and dried a contg. alkaline ribonuclease, is first conc. by ultrafiltration dialysed. Bul. 18/15.5.80.

ASBI= ★ D16 05140 D/04 ★SU
Microbiological prodn. of RNA-polymerase - by sub culturing of Escherichia coli strain using two/stage specified amts. of glucose
AS USSR BIOL PHYS 16.01.78-SU-570757
B04 (15.05.80) C12d-13/10
16.01.78 as 570757 (2pp938)
Prodn. of RNA-polymerase includes submerged cultu Escherichia coli bacterial culture in a liquid nutrient contg. as C source. The ribonucleic acid polymerase yield and activity of the final prod. are increased if the bacterial cu incubated in the medium contg. 0.35-0.5 g/l. glucose until all is used up, then held for 20-80 min. in a glucose-free nutrien addn. of further amt. of glucose to obtain 0.5-3.5 g/l. concn.
The nutrient is aerated and it contains N and P sour

salts. After rapid cooling, the cells are sepd. and the final extd. by known method. Bul.18/15.5.80.

★ D16 05141 D/04 ★SU-734-263
ological prodn. of glucoamylase - includes culturing llus niger producer strain using maize starch as carbon

MICROORGANISM 28.02.78-SU-585685
(15.05.80) C12d-13/10 C12k-01
as 585685 (3pp938)
ological synthesis of glucoamylase enzyme includes g Aspergillus niger vniigenetika-6 microbial strain in a utrient medium contg. maize starch as carbon source. The is used in bread baking, food and textile industries. The new an produce large amts. of glucoamylase. It can be used in ial prodn. of this enzyme. The strain is an oligosporogenic of the parent strain.
ally, nutrient, contg. (in %): maize starch 7.0; maize flour 7.0; n meal 1.5; protein-vitamin conc. 1.5; diammonium phosphate terial amylase 1 unit/ g. of starch and water (pH 5.6) the rest oculated with the above strain (5%). The medium was ed at 33 deg.C for 120 hrs. to give prod. with 80-110 units per lucoamylase activity. Bul. 18/15.5.80.

= ★ D16 05142 D/04 ★SU-734-267
of wine from conc. grape juice - includes use of N-vinyl-done based polymeric sorbent and addn. of grape pressings ic extract
SC MAGARACH HORTI 16.11.77-SU-545683
(15.05.80) C12g-01/02
7 as 545683 (3pp938)
of wine from conc. grape juice includes the dilution with fermentation, heat treatment filtration, etc. The final prod. is increased if the conc. grape juice is first passed through a eric sorbent based on N-vinyl-pyrrolidone and then enriched henolic and aromatic cpds. extd. from grapes. The above ire obtd. by the extn. of grape pressings with aq. alcohol. The t contg. 40-45 alcohol by volume and 0.5-2.0 wt.% sugars is to must to give prod. contg. 0.1-4.0 volume % alcohol and 400-g/l. phenolic cpds. depending on the type of wine required. ust is the fermented in a known manner. Bul.18/15.5.80.

= ★ D16 05143 D/04 ★SU-734-269
vodka prodn. - includes fermentation of grape pressings aq. t and maturation of spirit in presence of oak shavings
MTREST IND UNION 03.10.77-SU-532113
05.80) C12g-03/08
7 as 532113 (2pp932)
. of Georgian national grape vodka (Chacha) includes alcoholic ntation of grape pressings aq. extract, distillation of prod. and n with soft water. The prod. quality is improved and the amt. hanol is reduced if the grape pressings are extd. witb water at leg.C for 25-28 min. and, after fermentation, the alcohol is ed off, collecting three fractions. The head fraction is collected 25 mins. and the middle fraction contg. 60-62 vol.% alcohol is or 9.5-10 months in the presence of oak shavings. The prod. is iluted with softened water to 48-50 vol.% alcohol content. /15.5.80.

= ★ D16 05144 D/04 ★SU-734-271
.. of cormogrisin antibiotic - includes culturing Actinomyces s P-42-110 strain using starch and maize flour based nutrient
KAZA MICROBIOL 19.12.78-SU-697758
(30.05.80) C12k-01/02
'8 as 697758 (3pp938)
biological prodn. of cormogrizin antibiotic includes culturing ducer strain Actinomyces griseous P-42-110. The new mutant accumulates large amts. of grisein and is resistant to the lytic of phage Pg 56 and phage Pg 57 12-400-18430 units/ml. of otic can be synthesised in laboratory conditions.
strain can be cultured on an agarised potato-based nutrient days at 28 deg.C. The seed culture is obtd. by two-stage ing or medium contg. maize flour and starch with addn. of onium nitrate, calcium carbonate, sodium chloride and assium phosphate. The first stage culture medium contains of milk. Max. yield of antibiotic is obtd. after 48 hrs. of ing. Bul.18/15.5.80.

= ★ D16 05146 D/04 ★SU-734-273
illium solitum Westling strain - is low cost high yield lipolytic me producer for use in medicine
NTIBIOTICS FERMENT 13.02.78-SU-578706
(15.05.80) C12d-13/10 C12k-01/02
78 as 578706 (3pp938)
illium solitum Westling LIA-T-080 microbial strain is used as cer of lipolytic enzyme which is used in medicine. The new has high lipolytic activity and improved storability producing low cost enzyme in high yields.
The strain is cultured in a medium contg. (in g/l): peptone 0.5; glycerol 15; sodium chloride 5; potassium chloride 0.5; ferrous sulphate 0.015; cupric sulphate 0.02; monopotassium phosphate 0.3; manganese sulphate 0.0002; magnesium sulphate 0.05 and agar 25 at pH 6.9. The medium is sterilised at 0.6 atmos. for 30 min. The culture medium is aerated using 1.0-1.5 air volumes per one volume of medium per one min. for 80-84 hrs. for max. yield of enzyme. Bul.18/15.5.80.

UFIS = ★ D16 05148 D/04 ★SU-734-275
Rabdovirus salmonis OF-s viral strain - produces viral hepatitis in trout and used in specific immune serum mfr.
UKR FISHERY RES 01.11.78-SU-684731
B04 C03 (15.05.80) C12k-01/02 C12k-07
01.11.78 as 684731 (3pp938)
Rabdovirus salmonis OF-5 viral strain is used to immunise rabbit in order to produce specific immune serum. The new strain produces rabdoviral hepatitis in trout and is used in veterinary virology.
It can be cultured in the trout gonad tissue cell. Cytopathogenic activity is obtd. after 21-48 hrs. incubation of gonatal tissue cultures. The viral strain can be easily culture at 22-24 deg.C. in gonadal tissue. It can be stored for three years at -20 deg.C and for six months at +4 deg.C. Bul.18/15.5.80

MILK = ★ D16 05149 D/04 ★SU-734-277
Prodn. of soured milk prods. - includes fermentation with Lactobacterium acidophilum strain, useful in therapy of intestinal infections
MILK IND RES INST 31.08.77-SU-523141
(D13) (15.05.80) A23c-09/12 C12k-03
31.08.77 as 523141 (3pp938)
Lactobacterium acidophilum NK5 is a new acidophilic bacterial strain which is used in the mfr. of acidophilus milk, paste and other fermented milk based prods. The strain has high lactic acid and antibiotic synthesising activity and gives soured milk prods. with high organoleptic characteristics and with improved flavour and consistency.
Fresh milk can be fermented in less tban 5 hrs. due to the high activity of the strain and the prod. pathogenic microorganisms and has low viscosity. The strain is resistant to phenol and can easily survive in the human intestines. It can be used for the treatment of intestinal infections. It has max. growth rate at 38-40 deg.C. It can grow in milk contg. 0.6% phenol. Bul. 18/15.5.80.

BAST = ★ D16 05150 D/04 ★SU-734-278
Trichosporon cutaneum to yeast strain - used in bast fibre soaking fluid purificn. to improve recovery of volatile organic cpds.
BAST FIBRE PRIMARY 17.10.77-SU-534771
F01 (15.05.80) C12k-03
17.10.77 as 534771 (4pp938)
Yeast strain Trichosporon cutaneum 70 is used in the preliminary treatment of bast fibres. The new strain actively assimilates volatile cpds. in bast fibres soaking liquid which accumulate during the fibre soaking process. The soaking liquid is purified and volatile cpds. are subsequently regenerated by the utilisation of Trichosporan cutaneum 70 strain.
The strain was isolated from biological growth in film aerator used in bast fibre processing. It has max.growth rate at pH 5.0-5.5 and 34-46 deg.C. As the strain has high rate of assimilation of organic acids the bast fibre soaking fluid contg. these acids can be purified in 18-24 hrs. in aerobic conditions. Bul.18/15.5.80.

VETE = ★ D16 05151 D/04 ★SU-734-279
Transmissible gastroenteritis viral strain - used in mfr. of vaccine against viral gastroenteritis infection in swine
VETERINARY PREP RES 21.12.78-SU-694803
B04 C03 (20.05.80) C12k-05 C12k-07
21.12.78 as 694803 (3pp938)
Transmissible gastroenteritis No.5VGNKI viral strain is used in the mfr. of vaccine against transmissible gastroenteritis in swine. The new strain has high immunogenic activity. It does not produce pathological changes in new-born pigs vaccinated with this strain. The immune reaction is produced in pigs after 8 days. Max. immunity is obtd. after 21 days in swine (after 3 days in newborn pigs).
The viral strain culture is freeze-dried and stored at 4-8 deg.C. It gives 80.85% protection against transmissible gastroenteritis infection in young pigs. Bul.18/15.5.80.

MOSU ★ D16 05152 D/04 ★SU-734-282
Prodn. of blood-forming tissue cells in chick - includes injecting quail cells into vein of irradiated chick and testing bone marrow cells
MOSCOW LOMONOSOV UNIV 29.12.78-SU-724821
B04 C03 S03 (X25) (17.05.80) C12k-09 G01n-33/16
29.12.78 as 724821 (2pp938)
Haemopoietic tissue cell colonies are produced in bird by injecting donor's haemopoietic tissue cells into the wing's vein of sublethally

irradiated 3 week old chick followed by 7-9 day incubation. The bone marrow cells are extd. and identified by means of a benzidine positive test.

The accuracy of the identification and the yield of cell colonies are increased by using quail as donor and conducting an additional Feulgen's test on benzidine -positive colonies. Bul. 18/15.5.80.

HAYB D16 15492 U/11 = SU -735-177
Pullulan prodn by fermentation - using a saccharide as main carbon source
HAYASHIBARA BIOCHEM 11.10.71-JP-079413
*B04 (D17) (15.05.80) *BE-789-940 C12d-13/04*
09.10.72 as 834802 (5pp)
Pullulan is produced by aerobic culture of a pullulan producing microorganism in a medium contg. a starch hydrolysate of dextrose equiv. 20-70 as the source of assimilable C a source of assimilable N and essential minor growth factors, followed by recovery of the pullulan from the culture medium. Pullulan is a polysaccharide useful as a blood anticoagulant, and in the prodn. of water sol. packaging films. Bul.18/15.5.80.

PLAN = ★ D16 05306 D/04 ★SU -735-590
Lactic acid prodn. by culturing Streptococcus lactis - includes recovering antibiotic nisin before treating culture liq. for lactic acid recovery
PLANT PROTECT BACTE 15.11.77-SU-543572
E17 (28.05.80) A23c-21 C07c-59/08
15.11.77 as 543572 (4pp314)
Lactic acid is obtd. by culturing Streptococcus lactis bacteria. The antibiotic nisin is first recovered from the resulting biomass and the remaining culture liq. is then treated for lactic acid recovery. The pH is adjusted to 9.5-9.8 the resulting ppte. filtered, the liquor purified first on a cationite and then an anionite and the prod. desorbed with H_2SO_4. The process has lower cost than prior art. processes for making lactic acid.

The cationite used is pref. a sulpho-copolystyrene resin in hydrogen can form and the anionite is pref. a condensation-type anionite with a sec. tert. or quat. aliphatic amino gp.

EGER/ D16 71712 B/40 = US 4242-832
Mono:karyons prodn. from di:karyotic Basidiomycetes strains - by culturing hyphal fragments on glycine contg. soln.
EGER G 29.03.78-DE-813521
*+P13 (06.01.81) *BE-875-161 A01g-01/04*
26.03.79 as 023772 (9pp974)
Monokaryons are prepd. by dedikaryotising a dikaryotic strain of Basidiomycetes, which comprises (a)mechanically fragmenting the mycelium of a dikaryotic strain of Basidiomycetes in an aq. medium to give viable mycelial fragments having one to very few hyphal compartments; (b)introducing a small potion of the mycelial fragments obtd into a dedikaryotising soln. contg. glycine and at least one C source.

Process further comprises (c)incubating the fragments while keeping them covered by at least 2mm of soln. to allow the fragments to grow into spatially isolated mycelial pellets; (d)inspecting random samples to determine the degree of dedikaryotisation (e)fragmenting visible mycelial pellets in an aq. medium to give hyphal fragments of one to very few cells; (f) placing the fragments obtd on or in a nutrient agar plate and allowing them to grow into spatially isolated individual monokaryotic colonies and (g)transferring at least one of these colonies to a new nutrient medium.

Prods. can be used to produce new strains of edible mushrooms.

KURE D16 26389 B/14 = US 4243-662
Nitrogen-contg. polysaccharide active against plant viruses - obtd. by ammonia treatment of Basidiomycetes culture prod.
KUREHA KAGAKU KOGYO 16.09.77-JP-111968
*C03 (06.01.81) *DE2840-036 A61k-31/73 C07h-05/06*
12.04.79 as 029546 (+18.09.78-US-943474) (7pp954)
Protection of a plant from infection by a plant virus i.e. tobacco mosaic, cucumber mosaic or cucumber green mosaic virus comprises treating the plant of the Solanaceae or Cucurbitaceae family with an aq. soln. of a prod. consisting of N-contg. polysaccharides of elemental composition 38.50% C, 2.5-10 % N, 5.5-7.5 % H, and the balance O, of mol.wt. 500-10000 showing absorption in the infra-red at 1620 cm power minus 1, obtd. by bringing a culture prod. of Basidomycetes fungus into reaction with an aq. ammoniacal soln. of 0.03-17N at 150-250 deg.C under pressure by filtering the reaction prod. to obtain filtrate, and then after purifying, drying the filtrate.

FRAU D16 52663 B/29 = U
Silicic acid hetero-polycondensates - useful as substrate culture and as chromatographic supports for biochemical m
FRAUNHOFER-GES FORD ANGE 28.12.77-DE-758414
*A26 B04 (A96) (06.01.81) *DE2758-414 C08g-77/56*
27.12.78 as 973559 (7pp924)
Prodn. of a silicic acid heteropolycondensate c simultaneously condensing (a) substd.silane(s) of formula n) (I), (b) functional silane(s) of formula $SiR_n(RY)_{(4-n)}$ hydrolysable silicic acid deriv(s). of formula SiR_4 (III), and least one cpd. selected from non-volatile oxides of Gps. Ia and/or Vb, elements, and cpds. of Gp. Ia-Va, IVb and Vb e which form a non-volatile oxide, in the presence of sufficie to effect hydrolysis and in the presence of a condensn. and/or solvent.

The quantities of components (a) to (d) used are selected s the condensate formed contains (based on oxide units) 60-90 w 1-15 wt.% (b), 1-30 wt.% (c), and 0-40 wt.% (d). In the formulae halo, alkoxy or -NR'2 (where R' is H and/or lower alky (ar)alkyl, alkenyl or aryl; n is 1-3; R' is alkylene (phenyl (alkyl)phenylene; 7 is halo, amino, anilino, aldehyde, keto, c diazo, carboxylic alkyl ester, -SO3H or -PO3H2; and n is 1, 2 o condensates are useful in the preon. of coatings for sub useful as supports in the culture of living cells.

MILE D16 69285 A/39 = US
Quantitative determination of hapten(s) - by enzyme immu technique
MILES YEDA LTD (HYPO) 16.03.77-IL-051667
*A96 B04 J04 (S03) (06.01.81) *DE2811-537 G01n-33/16 + G0*
16.03.78 as 887328 (6pp945)
Quantitative assay of a hapten, designated hapten X, i injecting a mammal with a hapten X conjugated to pro specific antibody against the hapten, anti-X. Another ha larger molecule, Y (in conjugated form if it is small mole similarly injected to form anti-Y antibodies. Anti-X bod adsorbed onto a solid support then this is contacted with contg. the unknown quantity of hapten X and a known quanti Y conjugate to cause all anti-X sites to be occupied. Unreacte X-Y are then removed. The resulting support is contacted conjugate of enzyme-labelled anti-Y antibody, then with a su for the enzyme which gives a colour reaction in the presence enzyme. The colour intensity indicates the quantity of bound e and from this value, the quantity of hapten X is found calibration curves.

Hapten X may be a hormone, vitamin, cardiac gly polypeptide or drug. Y is e.g. trinitrophenyl-lysine sulpbanili the support may be polystyrene and the enzyme a peroxidase.

NADI ★ D16 05615 D/04 ★US
Continuous prepn. of ethanol from starch - by liquef saccharification, then fermentation with two yeast strains
NATIONAL DISTILLERS CORP 29.05.79-US-043193
(06.01.81) C12p-07/14
29.05.79 as 043193 (10pp478)
EtOH is prepd. by the hydrolysis of starch (I) and the con fermentation of the produced fermentable sugars (II) as follo an aq. (I) slurry is liquefied with a strong acid or liquefying e (b) the resulting sterile liquefied (I) is 60-80 wt.% (of origina (II) and the remainder as partial hydrolysate (III); and (c) (I with (III) further saccharified) is continuously fermented in a of vessels in which the EtOH content of the fermentation me progressively increased in each vessel as (II) is consumed.

The fermentation uses at least 2 strains of EtOH-producing (i) one which provides a high rate of EtOH prodn. in a medium a low concn. of EtOH and a high concn. of (II); and (ii) one provides a high rate of EtOH prodn. in a medium contg. concn. of EtOH and a low concn. of (II).

Use of the 2 separate yeast strains allows industrial EtOH produced at competitive prices in a thermally efficient, continuous fermentation process. In addn., (I) from e.g. mani is hydrolysed rapidly in high conversion levels.

STRI D16 75619 C/43 = US 4
Cellulase prodn. by Thielavia terrestris cultivation - in m contg. glycerol to increase prodn. of beta-glucosidase
SRI INTERNATIONAL 09.04.79-US-028500
*(D17) (06.01.81) *DE3013-627 C12n-09/42*
09.04.79 as 028500 (10pp937)
Yields of cellulase enzes from Thielaria terrestris are increa adding 0.5-5% glycerol to the standard media. Pref. the ce enzyme produced in increased yield is the more thermally beta-glucosidase.

The enzes produced are purified and sepd. by (1) filteri media culture, (2) precipitating with ammonium sulphate sat (3) solubilising and then desalting with gel-filtration, (4) elutir NaCl, (5) further subjecting the eluates to gel filtration to

sepd. fractions of beta glucosidase, C1 and Cx enzyme

parated beta glucosidase is used to convert cellulose to glucose by passing a stream of cellulosic material over cosidase that is on a fixed support or trapped in a polymer

D16 05616 D/04 ★US 4243-753
detection by reacting in vessel holding glass beads - then g output in spectrometer
DUE RESEARCH FOUNDATI 27.02.78-US-881577 (07.04.76-74510)
04 (06.01.81) C12m-01/40
as 881577 C.i.p.674510 (11pp295)

An enzyme is detected by mixing a sample liquid with a liquid reactant. The mixt. then passes through a vessel filled with glass beads of dia. 37 millimicrons. The mixt. takes a predetermined time to pass through the vessel during which a reaction takes place.

The output liquid from the vessel is examined by a spectrophotometer. Pref. the beads have a coating of glycidoxypropyl trimethoxysilane.

The appts. forms part of a high performence liq. chromatography system which detects enzymes e.g. in diagnosing myocardial infarction, pulmonary infarctions, and liver diseases. The appts. operates continuously and produces a controlled reaction time.

See Also

D11 US 4243687 D13 EP--21310 D13 GB 2051548
D13 J8 0050666 D13 RO 67526 D13 SU 734272
D13 US 4243661 D13 US 4243684 D13 US 4243685
D15 SU 734274 D25 US 4243543 D25 US 4243546

D17: SUGAR; STARCH

D17 54151 U/37 = DS 2307-299
ite - by hydrogenation of isomaltose
DEUTSCHE ZUCKER 14.02.73-DE-307299
*(15.01.81) *BE-797-458 A61k-49*
as 307299 (2pp-)
bstance for checking kidney function comprises isomaltitol active component, dispersed with the usual pharmaceutical s and additives for intravenous injection.
altitol is easily obtd. pure and is readily soluble in water; here are no reducing groups present and it is stable on ation, so that it is prefd. to inulin or its related polyfructosans.

D17 28033 B/15 = DS 2744-067
uous hydrolysis of vegetable matter - in reactor with heating, ysis, extraction, scrubbing and dilution zones
AUTH H 30.09.77-DE-744067
*01.81) *DE2744-067 C13k-01/02*
7 as 744067 (4pp068)
ble material is continuously hydrolysed e.g. to glucose, by ent with dilute acid at high temp. The material to be treated is ted and then introduced at the upper end of a vertical reactor it is hydrolysed by volatile acid; then it sinks down the reactor extracted and washed with hot water in a wash zone and awn from the bottom of the reactor and returned.
wash water is withdrawn from the upper end of wash zone, trated with acid and returned to the same area of the wash eing countercurrent to the material.(DS)

D17 02124 D/03 = EP --21-364
wed two-step carbonation in sugar mfr. - by recycle of off-gas econd to first carbonation step
DDEUTSCHE ZUCKER 22.06.79-DE-925283
*01.81) *DE2925-283 C13d-03/06*
0 as 103455 (8pp367) (G) DS-583624 DS--16048 US4149901 FR-E(AT BE CH DE FR GB IT LI NL SE)
mation operations in a sugar factory are improved by ing the off-gas from the 2nd carbonation step to the 1st mation step..
ycling the off-gas not only reduces CO2 consumption by 8-16% so saves energy, since the recycled off-gas gives up 40-50% of t to the cold juice in the 1st carbonation step.
off-gas from the 1st carbonation step can be cooled to mse NH3 and other vapours by heat exchange against a cold ss stream, e.g. raw juice, clarified juice or lime-kiln gas.

D17 67108 A/38 = GB 1583-313
ygroscopic lactulose powder prodn. - by adding ethanol to scopic powder, allowing to stand, opt. with agitation, then ating
ORINAGA MILK KK 26.05.77-JP-061675
*.3 (21.01.81) *BE-866-880 C07h-03/04*
78 as 018726 (7pp931)
-hygroscopic lactulose-contg. powder is prepd. by adding 0.8 t. or more of ethyl alcohol to 1 pt. wt. of highly hygroscopic er contg. more than 55 wt.% of lactulose, such that the amt. of ol added produces a water content in the mixt. less than 2 wt.%. mixt. prepd. is allowed to stand, or stirred at a temp. less than ..pt. of the alcohol for 1 hr. or more with opt. cooling. Tbe ol-insoluble lactulose-contg. material is pptd. then sepd., and cohol removed.
prod. has a high purity of 55 wt.% or more, and does not merate by absorption of water at ordinary humidity and room ..

AGEN D17 73113 W/44 = J8 0050-680
separation of D-glucose and frutose from cane sugar - using a (bis) sulphite-type anion exchanger
AGENCY OF IND SCI TECH 16.04.74-JP-042888
*E13 (19.12.80) *J50046-848 + C13k-03*
05.06.72 as 042888 (4pp)
Cane sugar (I) was hydrolysed with acids, neutralised, and treated with a (bi)sulphite- type anion exchanger to separate D-glucose and fructose.

In an example, 10 g I in 200 ml. water was mixed with HC1 to pH 2, hydrolysed at 100 deg. for 30 min. neutralised with NaOH, and concd. to 70%, and 4 ml. soln. was sepd. using a bisulphite-type exchanger at 40 deg. (J50046848)

AGEN D17 14151 V/08 = J8 0051-557
D-fructose-D-glucose mixt - by conversion of starch
AGENCY OF IND SCI TECH 24.07.71-JP-055521
*(24.12.80) *J48022-643 + C12p-19/24*
24.07.71 as 055521 (2pp)
D-Glucose in the starch saccharification mixt. or oligosaccharide-contg. D-glucose soln. was partially isomerised to D-fructose and treated with glucoamylase to hydrolyse the oligosaccharide to obtain D-glucose-D-fructose mixed soln. (J48022643).

AGEN D17 57515 V/32 = J8 0051-560
Isolation of fructose from invert sugar - using calcium-type cation exchange followed by bisulphite type anion exchange
AGENCY OF IND SCI TECH 24.05.72-JP-051473
*(24.12.80) *J49007-442 + C13k-11*
24.05.72 as 051473 (4pp)
Invert sugar was treated with Ca2+ -type cation exchanger followed by HSO-3-type anion exchanger to isolate fructose. In an example, fructose was isolated from invert sugar (fructose 42, glucose 49.4, aligosaccharide 8.6%) using Dowex 50- x 80 and Dowex 1-x 8 and water as eluent. (J49007442).

SUGA= ★ D17 05171 D/04 ★SU -734-558
Quantitative determn. of sugar in soln. - includes treatment with lime and aluminium sulphate, filtration and polarography
SUGAR RES INST 01.11.77-SU-539293
J04 S03 (15.05.80) C13d-03/08 G01n-33/02
01.11.77 as 539293 (5pp938)
Sugar concn. in sugar solns. used in sugar mfr. can be estimated more accurately and quickly by treating sample soln. with calcium oxide, adding ammonium sulphate to clarify the soln., followed by filtration and polarimetry. Pref. 0.2-1.5% CaO and 0.2-3% ammonium sulphate are added for optimal result with lime:ammonium sulphate ratio of 1:1-1:2. Pref. 15% milk of lime and 30% aq.ammonium sulphate soln. are used, followed by 30-60 sec. stirring for max. colour redn. and clarification effects.

The method can be used for testing sugar beet extracts. Bul.18/15.5.80.

MOFO= ★ D17 05173 D/04 ★SU -734-561
Quantitative determn. of dyestuffs in raw sugar etc. - includes differential spectrophotometric analysis in specific spectral regions
MOSC FOOD TECHN INS 08.02.78-SU-577381
S03 (18.05.80) G01n-21 G01n-33/02
08.02.78 as 577381 (3pp938)
Colouring materials in slightly coloured raw sugar (or prods. obtd. in sugar mfg.) are estimated quantitatively by dissolving test material in water and spectrophotometric determination of optical density of the resulting coloured soln. at wavelengths corresp. to max. absorption in spectral regions characteristic of individual dyestuffs, and calculating the amts. of the latter in tbe soln.

The accuracy of the determination is increased if, after

decolourising the test soln., the procedure is repeated and the amts. of dyestuffs are calculated from the difference in optical density values using a given formula. Bul.18/15.5.80.

See Also
D16 J8 0051551 D16 SU 735177 D16 US

D18: SKINS; HIDES; LEATHER; TOBACCO

DMON/ ★ D18 D/04 ★BR 8006-689
Integrated prodn. of polyolefin fibres for cigarette filters
DI BONAVENTURA M 17.10.80-BR-006689
A17 F01 P15 (A32) (30.12.80) A24d-03/08

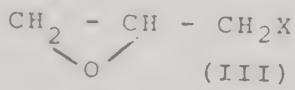
LINM ★ D18 03876 D/04 ★DE 2927-188
Endothermal tobacco fermentation in pure oxygen or oxygen-rich gas - using appts. contg. controls for maintaining specific atmos. in reactor
LINDE AG 05.07.79-DE-927188
T06 X25 P15 (15.01.81) A24b-15
05.07.79 as 927188 (10pp200)
Endothermal tobacco fermentation takes place in a pure O2 atmos. or in a gas contg. over 25% O2. The appts. contains a supply-conduit connected to a feed-conduit for gas and/or to a feed-conduit for pure O2 and emptying into a closed fermentation chamber and also an effluent gas conduit linked to an O2-prim. element connected to control circuit. Control circuit responds to the difference between measured value signals and a nominal value control signal, adjustable by setting means and is connected to the actuator of final control element in gas-conduit and/or actuator of final control element in O2-conduit.

Compared to fermentation in air, (i) fermentation time is shortened; (ii) the nicotine and condensate contents are reduced and (iii) specific tobacco aromas are opened up more.

SHEL D18 01234 Z/00 #DS 1593-421
Cationic ester contg. quaternary nitrogen - used as treating agent to paper, fibres, textile or leather
SHELL INT RES MIJ BV 02.08.66-JP-050367 (29.08.66-DE-593421)
*E16 F06 (F09) (15.01.81) *J70037-002 C07c-93/19*
29.08.66 as 593421 Div in 1793834 (4pp200)
Prepn. of cationic quat. N atom-contg. ester cpds. having formula R'-(COO-CH2-CHOH-CH2-NRRRX)n (I)

(where R is 1-20C alkyl; R' is 2-6C aliphatic hydrocarbyl contg. 1 or 2 ethylenic bonds; X is Cl or Br and n is 1 or 2, provided R' contains no more than 4C when n is 2) comprisesreacting an unsaturated mono- or dicarboxylic acid having formula R'-(COOH)n (II) with a trialkylamine N(R)3 and with a 2,3-epoxy-1-halo-propane having formula (III). The novelty lies in (a) using a trialkylamine quantity of 0.6-0.85 mol per mol of whichever of reaction partners (II) or (III) is present in smaller quantities and (b) carrying out the reaction in an inert polar solvent.

(I) are surface active and can be used as (i) acid dye acceptors in dyeing acrylic fibres, (ii) additives increasing dry strength of paper, (iii) biocides, esp. germicides. The OH gp. can be esterified or etherified and the ethylenic double bond can be epoxy resin raw materials. (I) can be used in the prepn. of (co)polymers used for finishing yarns, fabrics, paper and leather, and for sepg. solids e.g. ores from aq. suspension. (DS)

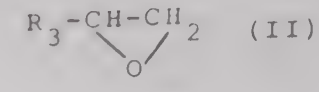


(III)

CASS D18 02324 B/02 =EP G000-201
Brightening and waterproofing cellulose textiles and leather - using compsn. contg. sulphonyl urea, emulsifier, opt. higher epoxide and water or organic solvent
CASSELLA AG 02.07.77-DE-730042
*E19 F06 (07.01.81) *EP-----201 C07c-143/83 D06m-13/40*
29.06.78 as 100278 (30pp481) (G) No-Citns. E(BE CH DE FR GB NL)
Conditioning- and hydrophobising agent for textile materials comprising or contg. cellulose, comprises a pts. wt. of a cpd. of formula:-
R-B-CO-NH-SO2-X (I)

In which R is 10-30C alkyl or alkenyl, B is -N(R)-,-N(R')- or -NH-CnH2n-N(R2)- in which R1 and R2 are H or 1-4C alkyl and n is 2,3 or 4 and X is 2-4C beta-halogenoalkyl or alkenyl; b pts. wt of an emulsifier comprising 100-37.5% of known anionic emulsifiers and 0-25% of known fat liquors; c pts. wt. of an epoxide of formula (II), in which R3 is 15-40C alkyl or alkenyl; and opt. d pts. wt. of H2O or a H20-miscible organic solvent where a is 80-99, b is a 20-1, c is 0-5 and opt. 100.a/a + b + c + d is 10-40.

Cpds. (I) are new.



(II)

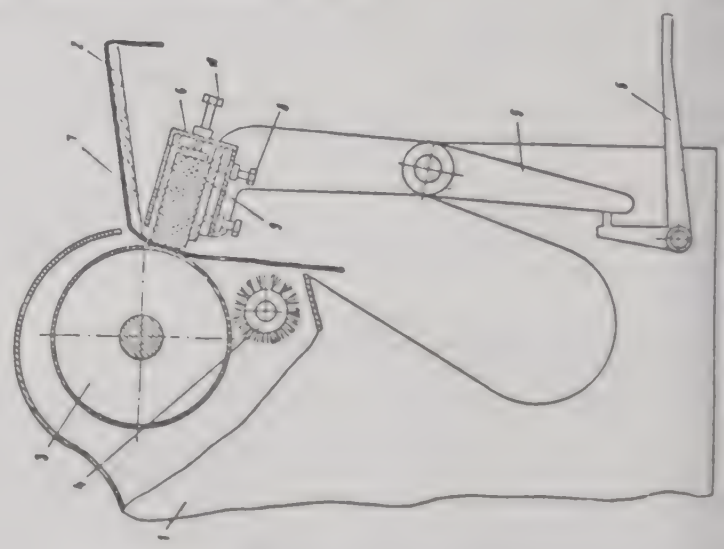
ASAH D18 43187 W/26 =
Alkali cellulose tobacco substitutes - prepd. from cellulo with alkali and prod. heated
ASAHI CHEMICAL IND KK 25.12.72-JP-129341
*A97 + P15 (24.12.80) *J49086-599 + A24b-15/16*
25.12.72 as 129341 (4pp)
Cellulose was treated with alkali to form cellulose which w heat-treated until no pyranose rings were detected in the The resulting material was an excellent substitute or additi

In an example, sol. viscose rayon pulp contg. 93.6% alpha was treated with NaOH to form alkali cellulose. Heat-tre the alkali cellulose yielded a dark-brownish material whi pyranose rings. The purified material was burnt on a sp tested by smokers. All smokers felt no stimulatory sensa the smoke. (J49086599).

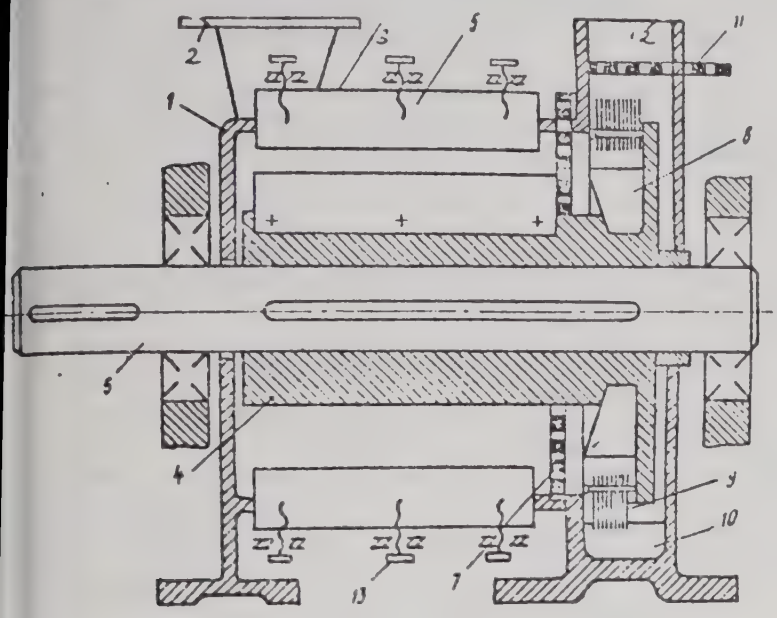
RETO D18 73526 W/44 = J
Smoking mixture of expanded cereal grains - used as substitute or filler
REYNOLDS TOBACCO CO 20.03.75-US-560024 (15. 460782)
*P15 (24.12.80) *NL7504-447 A24b-15/16 A24d-01*
15.04.75 as 044899 (-pp)
Material for smoking contg. a material based on expande grains, pref. in the form of cut thin strips. The material a contains tobacco with up to 50% of expanded cereal par from maize, rice, tye, corn, millet, sorghum, oats, ba wheat/rye blend. Also cigarettes made from this m (J50145599).

ORLO= ★ D18 05323 D/04 ★S
Leather skin buffer - has support with curved felt base facin drum with wear compensator
ORLOVO LIGHT ENG RE 17.06.77-SU-499025
(28.05.80) C14b-01/46
17.06.77 as 499025 (2pp89)
The buffing of leather skins is improved and the constant st the working zone is maintained if the support base is resilient material, the end face of which is opposite the buff and is curved, while the clamping and height are adjus screws.

The wear of the base made of felt is compensated by ad the working zone using screw when the skin is fed for buff the table.Depression of the pedal forces the skin against drum which polishes and advances the skin at a rate depe the force of pressing.Bul.19/25.5.80.



D18 05324 D/04 ★SU -735-635
waste, e.g. leather offcuts, grinder - has two interconnected d pressure transducer in outlet
ANCHUK B P 05.10.77-SU-534977
80) C14b-13
s 534977 (4pp89)
ver intake of the leather or other fibrous waste grinder is by the control of the degree of splitting up of the raw in a unit with a transducer sensing the air flow pressure fitted at the outlet.
otor control circuit includes a setter of the pressure and an r with the transducer and setter connected to the ator. The rotors of the preliminary grinder and of the g unit are interconnected.



PHIM ★ D18 05429 D/04 ★US 4243-056
Impregnating tobacco with additives e.g. flavourings - in soln. or dispersion in liq. carbon di:oxide which is later removed
PHILIP MORRIS INC 12.01.79-US-002981
P15 (06.01.81) A24b-03/18
12.01.79 as 002981 (6pp955)
An additive is dispersed in liq. CO2, and tobacco is contacted with the mixt. until at least part of the soln. is absorbed. The liq. CO2 is converted to solid, which is allowed to evaporate.
Flavourants etc. are uniformly distributed and penetrate the cellular structure. The solvent is easily removed and collapse of expanded tobacco prods. is avoided. Flavouring and expansion can be carried out simultaneously if the solid carbon dioxide is expelled rapidly by heating.

AMBS ★ D18 05669 D/04 ★WP 8100-001
Casting all tobacco sheet - from five per cent refined tobacco with CSF of -900ml
AMERICAN BRANDS INC 22.06.79-US-051459
P15 (08.01.81) A24b-03/14
19.06.80 as U00758 (14pp295) (E) US3646943 US3125098 US3115882 US3464422 US4000748 US3097653 US2707472 N(DE GB) E(DE FR GB)
A tobacco sheet is cast from an all-tobacco base which contains no cross-linking agents or binders. The tobacco material is refined to a Canadian Standard Freeness (CSF) or less than -900ml and formed into a mixture where it comprises 5%w/w. The mixture is cast on a non-porous surface.
Alternatively an all-tobacco film is formed by mixing small tobacco particles with hot water to achieve a 20 to 60% w/w tobacco mixture. The mixture is refined to a particle size of 1 mm and diluted with water to a 5% solid conc. It is then cast..
Tbe method produces an all-tobacco material which is used in cigarettes.

See Also

D13 US 4243823

D2: DISINFECTANTS; DETERGENTS

D21 : DENTAL; TOILET PREPARATIONS

★ D21 03780 D/04 ★CH -620-828
and dental compsns. contg. non:cariogenic sweetener - ising hydrogenated starch hydrolysate, transparent tooth an be obtd.
BA AG 02.03.76-CH-002579
(31.12.80) A61k-07/16
as 002579 (4pp367)
ompsns. for oral and dental hygiene contain a non-cariogenic genated starch hydrolysate (I) as sweetener and opt. also as tant and plasticiser.
re relatively inexpensive and their conc. aq. solns. have a tive index such that transparent compsns. (esp. toothpastes) obtained.
re commercially available, e.g. as Lycasin and Polysorb s). Types with a high maltitol content are prefd. The compsns. e formulated as toothpastes, tooth powders, gels, etc. opt. other non-cariogenic sweeteners (e.g. saccharine or mates) and/or humectants and plasticisers (e.g. glycerol, ol, xylitol, propylene glycol or polypropylene glycol).

★ D21 03903 D/04 ★DE 2928-007
implant for prosthesis and bone-connectors - consists of m, tantalum, niobium or other sinter metal carrier and m phosphate ceramic
ESS G 11.07.79-DE-928007
(D22) (15.01.81) A61c-08 A61f-01
9 as 928007 (16pp200)
mplant bodies consist of a mechanically stable carrier of Ti, or similar sinter metal, which is bio-compatible with the bony and which can be bonded harmlessly to the embedded bio-Ca phosphate ceramic, esp. of tri- and tetra-Ca phosphate, t forming intermediate reaction prods.
of sinter metal carrier allows accurate working of shapes. The nts combine the stability and low corrosion of the carrier with o-active resorption properties of the ceramic. A Ca phosphate applied as surface layer forms a stable bond with carrier.
The implants are used in bone-, joint- and dental prostheses and in bone-connectors, e.g. bone- screws or -splints.

MEDZ ★ D21 03937 D/04 ★DE 3019-539
Mineral tooth contg. silane-coupled plastic coating - applied as mixt. of (poly)methyl methacrylate, dioxan, sensitiser and mineral filler (NL 31.12.80) NL 31.12.80)
VEB MEDIZINTECH LEIPZIG 29.06.79-DD-213978
A96 P32 (15.01.81) A61c-13/08
22.05.80 as 019539 (20pp200)
Individual mineral tooth base layers have grain-size distribution ranging from less than 60-100 microns, to achieve a labial to dorsal stress drop. The dorsal or basal surface of the mineral tooth is coated with a silane coupling layer followed by an adhering plastic component consisting of a mixt. of 30-33% polymethyl methacrylate, 3-6% dioxan, 64-66% Me methacrylate, 1-2% sensitiser and 0.5% vapour pressure-reducing agent and contg. 1-5% opt. pre-silanised mineral fillers having grain-size below 60 microns and/or silicate-bonded colour pigments.
The silane layer improves plastic coating adhesion to mineral base. The teeth can be produced industrially and the plastic compsn. allows processing times up to 120 hrs.

BLEN D21 02117 D/03 = EP --20-847
Inlay soap cakes mfr. - by chilling extruded sec. strand before inserting in basic strand surface
BLENDAX WERKE SCHNEIDER 22.06.79-DE-925228
*(07.01.81) *DE2925-228 C11d-13/18 + C11d-17/04*
07.02.80 as 100638 (6pp39) (G) DE2049268 AT-301724 DE2254119 E(BE CH DE FR GB IT LU NL SE)
Pieces of inlay soap, consisting of a basic cake with a sec. insert in its surface, are produced by extruding both basic and sec. strand in separate extruders at a temp. of 35-45 deg.C (pref. 40 deg.C). The sec. strand is immediately on its exit chilled to 25-35 deg.C (pref. 30 deg.C). After separate stamping and cutting to size, the sec. insert is pressed into the recess of the basic cake..

This creates a firm bond between basic cake and insert and prevents deformation of the insert during the inlay operation.

SCHW- D21 90350 C/51 = EP --21-135
Prodn. of solid cosmetic products - by mixing ingredients with water, moulding and drying
SCHWAN-STABILO SCHW 07.06.79-DE-923080
*(07.01.81) *DE2923-080 A61k-07/02*
03.06.80 as 103065 (14pp367) (G) NO-CITNS. E(CH FR GB IT LI)
Prodn. of cosmetic prods. for skin care and/or decoration, based on fats, emulsifiers, water-soluble binders and opt. fillers, comprises mixing the ingredients with sufficient water to form a mouldable mass, cold-moulding the mass (pref. in stick form), and removing sufficient water to produce a solid structure..

The prods. are non-deformable solids with high mechanical strength, a low water content and good resistance to bacterial contamination. When applied to moistened skin, they form a readily spreadable cream.

BUSL/ ★ D21 04236 D/04 ★FR 2452-283
Capillary compsn. for the scalp - contg. pilocarpine, quinine, aromatic alcoholate and alcohol
BUS L E 29.03.79-FR-008413
E19 (28.11.80) A61k-07/06
29.03.79 as 008413 (3pp597)
A capillary compsn. for the scalp contains alcohol, an aromatic alcoholate, pilocarpine and quinine. It eliminates accumulated grease, stimulates the skin and promotes hair growth.

A pref. compsn. contains; pilocarpine HCl (0.25g), quinine (1g), ether (2.5g), aromatic alcoholate (2.5g), 90% alcohol (250g), water (50g), ammonia (4g).

OREA ★ D21 04259 D/04 ★FR 2452-505
Surfactant oligomers with opt. modified amine groups - useful in hair care, cosmetic and pharmaceutical compsns.
L'OREAL SA 28.03.79-FR-007845 (19.07.76-FR-021961)
A96 B04 (28.11.80) A61k-07/06 C08g-65/08
28.03.79 as 007845 Div.ex. 19.7.76-021961 (48pp1251)
Surface-active oligomers of formula (I) are new.
Z-O (-C2H3(CH2B)O) n' (C2H3(CH2A)O) m (C2H3(CH2B)O) nQ (I).
In (I), the CH2B and CH2A gps. can be attached to either atom of the C2H3 gp.; One of Z and Q is H and the other 1-20C alkyl; A is 5-17C linear alkyl or 4-20C opt. branched alkoxy; B is R1R2N, R1R2N-O, R1R2N-OH(+) V(-), R1R2NH V or R1R2R3N Z; R1 and R2 are 1-3C alkyl or hydroxyalkyl or together complete a 6-membered heterocycle, pref. piperidine or morpholino; R3 is methyl or ethyl. Z is an anion, pref. XSO3 (X is H, methyl or p-tolyl) or methylsulphate; V is an anion, pref. chloro, bromo, sulphate, phosphate, acetate, lactate or tartrate; m is 2-10 (integral or fractional); n and n' are 2-25 (integral or fractional) and one of them may also be zero.

(I) are useful e.g. as foaming agents, detergents, binders, solubilisers, anti-redeposition agents, antistatic finishes etc., esp. in hair-care, cosmetic and pharmaceutical compsns., particular particularly in shampoos, and hair dyes, and as excipients. They have good affinity for water and chemical stability, and do not irritate the mucosa.

WELA D21 02331 A/02 = GB 1583-086
Hair setting agent comprising soln. of chitosan salt - which does not brush out and is unaffected by moisture (NL 20.12.77)
WELLA AG 18.06.76-DE-627419
*A96 + P24 (A11) (21.01.81) *DE2627-419 A61k-07/11*
17.06.77 as 025461 (4pp936)
Prepn. for fixing a hair-style comprises an aq.-alcoholic soln. of a film-forming resin (I) and a conventional additive. Improvement is that (I) is a water-soluble salt of chitosan.

Pref. the salt is of formic-, acetic- or lactic acid. Prepn. pref. contains a direct dye. Treated hair becomes less statically charged when brushed or combed and can be styled with greater ease. Only a low concn. of (I) is required.

OREA D21 85029 Y/48 = GB 1583-102
Cosmetics contg. quinoxaline di-(N)-oxide derivs. - for imparting brown colour to skin after exposure to sunlight
L'OREAL SA 03.05.76-FR-013165
*E13 (21.01.81) *DE2719-542 A61k-07/42*
02.05.77 as 018380 (15pp936)
Skin is tanned by applying a compsn. which contains at least 1 quinoxaline deriv. of formula (I) cr its addn. salt with (in)organic acid, and exposing the skin to UV radiation.

In (I), R1 and R2 are each H, aliphatic hydrocarbyl, carbalkoxy, acyl, aryl opt. substd. by at least 1 alkyl or OH, heterocyclyl opt. substd. by alkyl, halo or OH, or R1 and R2 together with attached C atoms form a satd. cyclic gp. having 4-10 ring members, opt. substd. by alkyl, halo or OH, and/or which is bridged and which can contain a hetero-atom; and R3 is H, 1-6C alkyl or alkoxy or halo. Proviso is that R1, R2 and R3 are not all H.

Suntan obtd. is uniform, exhibits uniformity in the areas to radiation, and is resistant to water and soaping.

YAMA D21 16156 A/09 = GB
Cold permanent waving compsn. - contg. lower alkyl cysteine or corresp. inorganic salt
YAMANOUCHI PHARM KK (NIRI-YAMA) 19.08.76-JP
*A96 E16 (21.01.81) *DE2658-424 + D06m-13/40*
12.08.77 as 034008 (3pp931)
The permanent waving of hair is effected by applying to th compsn. contg. a 1-6C alkyl ester of cysteine or its salt having 6.0-10.0.

Pref. the methyl ester of cysteine is used in the form hydrochloride salt. The pH of the compsn. is 6.5-7.5 and the present in amt. 3-10 wt.%. The aq. soln. further contains at le penetrant, stabilising agent, wetting agent, viscosity-inc agent, perfume, colouring agent, emulsifier and/or antihis agent.

The compsn. may be used in hot or cold systs., with curlin etc. in a beauty salon, or for domestic use. Mild activity is sh the hair and skin and the hair may be easily washed with wate application.

DANI/ D21 00102 A/01 = GB 1
Thickened aq. hair dyeing compsn. contg. disperse dye - emul fatty acid ester and a paraffin
DANIELSON C V 31.08.76-SE-009628
*E24 (E17) (21.01.81) *BE-858-238 A61k-07/13*
08.08.77 as 033140 (4pp931)
A hair-dyeing compsn. comprises a dispersion dye in a thicker dispersion of pH less than 8, in which the emulsified comp contains a fatty alcohol and/or fatty acid ester, and a pa hydrocarbon.

Pref. the emulsified substances comprise a mixt. of paraff cetyl- and/or stearyl alcohol, and contains acidic subst yielding a pH of 3-5. The emulsifying substance or emulsifie anionic or a non-ionic surfactant.

The compsn. has a viscosity of 1000-35000 cP (esp. 2,500-15,0 The dyes produce uniform, satisfactory dyeing results a excellent hair cosmetic effect, with a pleasant softness and lu the hair, making combing easier.

YAMA/ ★ D21 04513 D/04 ★J55
Cosmetic, detergent and similar compsns. for application to contg. gene damage preventing additive to prevent skin disord
YAMAMOTO S 04.05.79-JP-055074
(17.11.80) A61k-07
04.05.79 as 055074 (8pp5)
An agent for preventing gene damage which is contai chemical cpds., animals and vegetables, is added to the material for non-medicinal external agents such as cosr detergents, etc. These external agents contain substances damage genes, e.g. antiseptic, emulsifier, pigment, etc. otherwise induce skin disorders such as blots, freckles, wr rashes, etc.

'Sorcocerile'(RTM) and 'cerrile'(RTM), which are o extracting whole blood of calves with removal of proteins an been used to promote cellular metabolism, prevent damage of by UV-rays, mytomycin, hinokitiol, etc. Other protective agen be extracted from vegetables and chemical cpds. The concn. a protective agent used is variable.

PROC ★ D21 D/04 ★J55
Skin conditioning composition
PROCTER & GAMBLE CO 17.01.80-US-112899 (23.02. 014459)
(17.11.80)

LIOY ★ D21 04514 D/04 ★J551
Hair dressing compsn. - contains polyoxyalkylene cpd branched alcohol
LION HAMIGAKI KK 08.05.79-JP-056175
A96 (A25) (17.11.80) A61k-07/11
08.05.75 as 056175 (7pp964)
The compsn. contains (a) polyoxyalkylene cpd. (I) obtd. by ad polymerising alkyleneoxide with monohydric or polyhydric a and (b) 12-22C branched alcohol which is liq. at normal temp the weight ratio of (a):(b) of 100:0.1-20.

Hair can be dressed to maintain pliability and non-stickiness

SHNE ★ D21 04519 D/04 ★J551
Higher diol cpds. useful as base for ointments etc. - prep reducing higher di:carboxylic acids e.g. with lithium alum anhydride
SHINEI KAGAKU KK(SHIA) 07.05.79-JP-056061
B07 E17 (17.11.80) A61k-09/06 C07c-29/13 C07c-31/20
07.05.79 as 056061 (3pp104)

d of formula
(CH2)5 CH(R)(CH2)nCH2OH (I)
R is lower alkyl; n is 6-10 integer) is new. (I) is prepd. by cpd. of formula: HOOC(CH2)5CH(R)(CH2)nCOOH (II) or its deriv. such as ester or acid halide with known reducing ch as Li Al hydride or the like Li hydride complex; Na in hydrogenation over Pt oxide etc.
eful as external bases of ointments, suppositories, creams, s, or the like preparations in cosmetics, or medicinals, excellent affinity to skins without irritation.

D21 04523 D/04 ★J5 5147-238
d esters of higher divalent alcohol - useful for forming s in cosmetics and pharmaceuticals
EI KAGAKU KK(SHIA) 07.05.79-JP-056063
17 (B07) (17.11.80) A61k-07 A61k-09/06 A61k-47 C07c-69
as 056063 (5pp69)
f higher divalent alcohol having side chain are of formula CH2)6CH(R1)(CH2)nCH2OCOR2 (I)
R1 is lower alkyl; R2 is over 7C alkyl, alkenyl or alkyl; n is 6-10. Pref. R1 is ethyl; R2 is C9, C11, C13, C15, C17, straight chain alkyl and n is 6-10 or R1 is ethyl; R2 is C17 chain of alkyl with hydroxy gp. at 11-position; n is 6-10; or R1 R2 is C17 straight chain alkenyl with double bond at 8-9 and n is 6-10; or R1 is ethyl; R2 is C15, C17 or C7 branched d n is 6-10
s of formula (I) are useful as material for oil or emulsion for ceuticals or cosmetics.

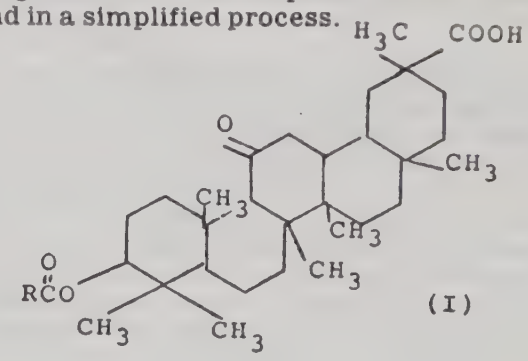
★ D21 04524 D/04 ★J5 5147-240
di:basic acid branched ester - useful as oil or emulsion in ics or pharmaceuticals
NEI KAGAKU KK(SHIA) 07.05.79-JP-056064
E17 (B07) (17.11.80) A61k-07 A61k-09/06 A61k-47 C07c-69/34
as 056064 (4pp69)
dibasic acid esters with side chain are of formula
C-(CH2)5-CH(R1)(CH2)nCOOR2 (I)
R1 is lower alkyl; R2 is over 10C straight chain alkyl, straight lkenyl or hydroxyalkyl or over 3C branched alkyl; n is 6-10. hyl- R2 is C10,C12, C14, C16 or C18 straight chain alkyl; n is 6-1 is ethyl; R2 is C18 straight chain alkenyl having double bond position and n is 6-10; or R1 is ethyl; side chain alkyl or R2 is yl or 2-octyldodecyl and n is 6-10; or R1 is ethyl; R2 is C16 side lkyl and n is 6-10; or R1 is ethyl-side chain alkyl or R2 is ryl and n is 6-10; or R1 is ethyl; R2 is C18 of straightchainof 2 position of straight chain of alkyl having hydroxy gp. and n

ll higher dibasic acid esters having side chainare useful as oil lsion in cosmetics and pharmaceuticals.

★ D21 04525 D/04 ★J5 5147-241
ster compound useful in cosmetics and pharmaceuticals - e.g. from diol and lactic acid in presence of tosyl acid as st
NEI KAGAKU KK(SHIA) 07.05.79-JP-056062
E17 (B07) (17.11.80) A61k-07 A61k-09/06 A61k-47 C07c-69/67
9 as 056062 (3pp69)
cpd. of formula R2COOCH2(CH2)5CHR1(CH2)nCH2OCOR2 (I) R1 is lower alkyl; R2 is 1-3C of hydroxyalkyl; and n is 6-10) is 4 cpds are specifically claimed including 7-ethyloctadecane-ol dilactate ester.
e useful as oily agents or emulsion for cosmetics or aceuticals.
n example 7-Ethyl-octadecan-1,18-diol and lactic acid were ed in toluene, a catalytic amt of tosyl acid was added into unt soln., resultant admixture was heated and refluxed with ucing nitrogen gas for ca. 3 hours. The prod was washed, t distilled off and prod. purified with active white clay or charcoal.

★ D21 04872 D/04 ★J5 5149-206
liq. material for prodn. of permanent wave - contains nium thio:glycolate, sucrose (bi carbonate alcohol olamine, tartaric or citric acid etc.
AI H 11.05.79-JP-057010
9 (E34 E36) (20.11.80) A61k-07/09
9 as 057010 (5pp5)
ial is prepd. by mixing (a) 5.4-7.4 wt.% ammonium ycolate, (b) 0.05-0.30 wt.% sucrose, (c) 0.05-0.12 wt.% carbonate arbonate of potassium or sodium, (d) 0.6-2.0 wt.% ethanol, nol, and ethylene glycol, glycerin, (e) 0.8-1.5 wt.% 28% aq. nia, (f) 0.4-0.8 w/w% of monoethanolamine, diethanolamine or anolamine, (g) 0.04-0.16 w/w% of tartaric acid and/or citric or their mixture, (h) 0.02-0.10 w/w% of potassium iodide opt. with iodine and (i) balance water. The pH of the mixt. is ted to range of 9.2-9.6.
r can be easily waved in a short time without the nasty smell and the toxicity to hair and skin.

NIHS ★ D21 04885 D/04 ★J5 5149-227
Antiinflammatory glycyrrhetinic acid fatty acid ester - produced by esterifying glycyrrhetinic acid and fatty acid in inert azeotropic solvent
NIPPON SURFACTANT KK 09.05.79-JP-056564
B05 (20.11.80) C07c-67/08 C07c-69
09.05.79 as 056564 (2pp75)
Prepn of glycyrrhetinic acid fatty acid ester of formula(I), comprises esterifying glycyrrhetinic acid with greater than 8C fatty acid in the presence of an inert azeotropic solvent. In (I) R is greater than 7C alkyl or alkenyl.
Glycyrrhetinic acid fatty acid ester, which has antiinflammatory activity and is useful as a pharmaceutical or additive to cosmetics, is prepd using materials less expensive than those conventionally employed and in a simplified process.



(I)

KAWA- ★ D21 04888 D/04 ★J5 5149-235
N-Acetylamino acid aluminium salts prepn. - by reacting the acid with non-crystalline aluminium hydroxide in a solvent, pref. water
KAWAKEN FINE CHEM K 11.04.79-JP-043757
B05 E12 (20.11.80) C07c-102 C07c-103/46 C07c-149/24
11.04.79 as 043757 (5pp140)
Prepn. of N-acetylamino acid aluminium salts such as aluminium N-acetylglutaminate, aluminium N-acetylglycine, aluminium N-acetylglutamine, aluminium N-acetyltyrosine, aluminium N-acetylmethione or aluminium N-acetylaspartate, useful as pharmaceuticals because of their anticancer activities, buffering activity and antiulcer activity and also useful as cosmetic materials because of their mild astringence and high safety. Prepn. comprises reacting N-acetylamino acid with non-crystalline aluminium hydroxide in a solvent, pref. water.
The reaction is generally performed by heating the reactants in a solvent at 40-80 deg.C for 3 hrs. while stirring. Traces of insol. matter are filtered, and the filtrate is concentrated to dryness under reduced pressure, to obtain crystals of the desired cpds. The solvent is generally used in such an amt. to make a reaction concn. of 5-50 wt.%. The molar ratio of N-acetylamino acid and aluminium in the resulting salt can opt. be controlled from 3:1 to 1:1 by varying the reaction molar ratio of the acid and aluminium hydroxide.
Aluminium salts of N-acetylamino acids of high purity can be obtd. industrially in high yield.

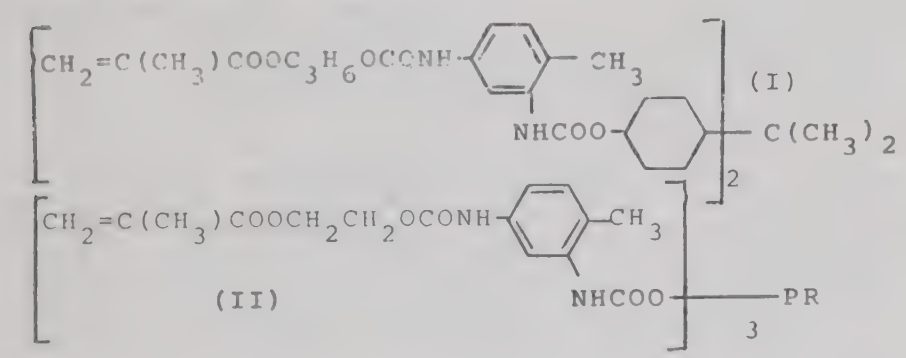
ALBR D21 46837 U/33 = J8 0050-998
Aqs surfactant concentrate - as shampoo liquid detergent and bubble bath
ALBRIGHT & WILSON LTD 26.05.72-GB-025054 (07.02.72-GB-005519)
*E14 (E12) (22.12.80) *BE-795-095 C11d-01/29 C11d-03/34 +A61k-07/06*
05.02.73 as 013849 (3pp)
Concentrate contains (a) at least 30 wt.% of an alkoyxylated sulphonated alcohol or a water-soluble salt of it, and (b) 1-10 wt.% (on wt. of soln.) of a cpd. RuYaAr (SO3H)b Xc or an alkali (ne earth) metal, alkanolamine, amine or ammonium salt of it (where R is 1-4C alkyl, Y is carboxy, X is OH or 1-4C alkoxy; a is 0-3; b is 1-3; c is 0-3, d is 0-4). Compsn. may be without gelling and without using unpleasant smelling or inflammable volatile mol. wt. modifiers. (J48090979)

MIRA- ★ D21 D/04 ★RO --67-798
Aq. greasy skin mask compsn. - contg. collagen material, kaolin, cetyl alcohol, glycerol, surfactant, fatty acid ester, cucumber extract and preservative
MIRAJ INTR PROD COS 30.06.75-RO-092775
(20.10.79) A61k-07/02

MIRA- ★ D21 D/04 ★RO --67-799
Aq. acne skin mask compsn. - contg. collagen, cetyl alcohol, glycerol, surfactant, hydrogenated plant oil, sulphur and chlorohexyne-gluconate
MIRAJ INTR PROD COS 30.06.75-RO-092776
(20.10.79) A61k-07/02

RITP ★ D21 05465 D/04 ★US 4243-412
Nickel base dental alloy of good porcelain adherence - contg. chromium, molybdenum, iron, niobium, silicon and carbon
SYBRON CORP 07.06.79-US-046325
M26 (06.01.81) C22c-19/05
07.07.79 as 046325 (4pp1135)
A corrosion resistant biocompatible dental alloy consists of 10-20% Cr, 4-10% Mo, 3-6% Fe, 2-6% Nb, up to 2% Al, 1-3% Si, 0.05-0.5% C and balance Ni.
Claimed alloys are (A) 17.1% Cr, 4.6% Mo, 6% Fe, 5.8% Nb, 1% Al, 1.55% Si, 0.25% C; (B) 14% Cr, 5% Mo, 3% Fe, 5% Nb, 1% Si, 0.12% C; (C) 14% Cr, 10% Mo, 6% Fe, 1% Si, 0.12% C and (D) 17-18% Cr, 4-5% Mo, 5-6% Fe, 4.5-6% Nb, 0.5-1.2% Al, 1.4-2.0% Si and 0.2-0.4% C, balance Ni in each case.
Alloy bonds to porcelain without needing any special heat treatment.

LOCT D21 43934 V/24 = US 4243-578
Dental filling compsns. contg. urethane-acrylate monomers - giving good adhesion to dentin and enamel
LOCTITE CORP 16.11.72-IE-001580
*A96 (06.01.81) *DE2357-324 + C08k-03/40*
17.01.80 as 112878 (+ 16.11.72, 25.05.77-US-415454, 800599) (6pp924)
Dental filling compsn. comprises a mixt. of (1) polymerisable acrylate ester monomers of formula (I) and (II), (2) 0.1-7 wt. % of a free radical polymerisation initiator (based on wt. of (I) and (II)); and (3) 40-95 wt.% of glass powder filler (based on wt. of compsn.). In (II) PR is a propylene triol oligomer residue. The compsn. provides hard, durable fillings which bond strongly and adhesively to tooth enamel, to dentin, to dental prosthesis and to pre-existing dental filling materials.



BERG D21 87855 B/49 = US 4243-590
Indole prodn. from 1,2,3,4-tetra:hydro-quinoline - by thermal cleavage in the presence of steam in a packed reactor
BERGWERKSVERBAND GMBH 26.05.78-DE-822907
*C03 E13 (D13 D23) (06.01.81) *DE2822-907 C07d-209/08*
22.05.79 as 041516 (3pp918)
Indole (I) is prepd. by reacting 1,2,3,4-tetrahydroquinoline (II) with steam (III) in a reactor filled with an inert material. A mixt. of (II):(III) in a mol. ratio 1:3-1:12 is introduced at a temp. 650-750 deg.C to the residence time of the starting and reaction prods. in the main reaction zone is 1-2 secs. The (I) is isolated and recovered from the reaction prod.
Pref. the reaction temp. is 675-725 deg.C and the reactor is filled with quartz wool or quartz glass shards Pref. (III) is preheated to 250-300 deg.C and (II) is preheated to 500 deg.C.
The starting prod. is easily available and can easily be obtd. by chemical reaction. The process gives (I) in high yield.

GUNT/ ★ D21 05579 D/04 ★US 4243-655
Dental health compsn. contg. biotin antagonist - to inhibit growth of biotin dependent cariogenic microorganisms
GUNTHER R E 04.09.79-US-071997 (13.11.78-US-960106)
B04 (06.01.81) A61k-07/16 A61k-31/41 A61k-35/54
04.09.79 as 071997 (+ 13.11.78(5)-US-960107,8,9; 960110,1) (11pp1251)
Dental health prod. is a toothpaste, toothpowder, mouthwash, chewing gum, confection, tooth-coating concentrate or sustained-release buccal tablet contg. enough biotin antagonist (I) to prevent biotin uptake by microorganisms which cause dental caries, plaque and acid formation. Pref. (I) is a biotin inactivator and/or a biotin antimetabolite.
(I) inhibit biotin which is an essential growth factor for the oral bacteria, so interfere with their development. They have no significant effect on the biotin store in the body.

KAOS D21 12819 Y/08 = US 4243-657
Hair protective compsn. comprising specified polyol esters - and/or long chain alkanols, polymethylsiloxane and an alcohol
KAO SOAP KK 14.10.75-JP-123392
*A96 E19 (A26) (06.01.81) *BE-847-194 A61k-07/06*
01.09.78 as 938838 (+ 07.10.76-US-730350) (6pp924)
Homogeneous liq. hair cosmetic compsn. consists of (A) 0.5-40 wt.% of a substance having a solidification temp. lower than -20 0.5-10 wt.% of cpd(s). of formula (CH3)3SiO(Si(CH3)2O)1-3 and (C) the balance of an alcohol for dissolving compone (B), selected from ethanol, propanol and isopropanol.
Component (A) is selected from (1) a cpd. of formula X1 R1CR2-(CH2)m-O-X2 (II) and/or (2) a cpd. of R3R4CHCH2OH (III). In the formulae X1 is R or RCO- COR or H; R is 6-12C alkyl; R1 is H, (m)ethyl or propy (m)ethyl or hydroxy; n and m are each integers of 1-3; integer of 3-14; R3 is opt- branched 8-10C alkyl and branched 6-8C alkyl. The viscosity of component (B) is 2-1 wt. ratio of (B):(A) is 1/10-8/1.
The compsn. provides improved protection for hai mechanical stimuli.

MINN ★ D21 05580 D/04 ★U
Redn. of elution of applied therapeutic agents from t application of anionic membrane forming sulphonamido-c acid
MINNESOTA MINING CO 02.04.79-US-026402 (29 865681)
B05 E19 (06.01.81) A61k-07/18
02.04.79 as 026402 (11pp1248)
Redn. of the elution of a therapeutic agent (I) that has been a the teeth is achieved by then applying so the teeth a comps (a) a therapeutic agent, polishing agent, surfactant, fl agent, sweetening agent, thickening agent or humectant (f polyvalent metal atoms). Together with (b) a least 0.05% of water-dispersible membrane- forming material of formula (RSO2-NR2-R3-COOM (II).
R is a 4-16C stable, inert, fluorinated, satd. non-polar gp.; Et, Pr or iPr: R3 is 1-10C alkylene or alkarylene: and M is metal, ammonium or an amine g.
The previously treated teeth are coated by (II), which complex with the Ca of the teeth to give a continuous hydr barrier on them, so that elution of the (I), esp. an anticarie from theteeth is greatly reduced. With the treatment, inhibition is possible.

ALBE ★ D21 05581 D/04 ★US
Liq. shampoo compsns. for increasing hair body - contg. detergent, bi:sulphite salt, and 1,3-di:methyl-urea
ALBERTO CULVER CO 24.05.79-US-041945
E19 (06.01.81) A61k-07/06
24.05.79 as 041945 (5pp478)
Shampoo consists of an aq. soln. of a compatible hair c synthetic detergent (I) (amt to be suitable for direct applic hair), 4-10% by wt. of a bisulphite salt (II), and 2-12% o dimethylurea (III), and has pH 4-6.9. (II) is Na (pref.), K bisulphite. (I) is pref. an amphoteric detergent cocoamidopropyl betaine or cocobetaine.
Application of the compsn. to hair effectively increases ha by permanently swelling hair shafts. Detergent ensures rem reducing and swelling agent.

AMDE- ★ D21 05623 D/04 ★US
Unsatd. polyester or acrylate or methacrylate compsn. - c peroxide catalyst and tert. aromatic amine accelerator
AMER DENTAL ASSOC 10.03.78-US-885275
A14 E14 (A23 A60 A96 D22) (06.01.81) A61k-05/02 C08g-63/ 03 C08l-67/06
10.03.78 as 885275 (13pp1302)
Polymerisable compsn. comprises an unsatd. polyester acrylate or methacrylate ester, a peroxide catalyst and aromatic amine accelerator (I). (I) has the formula R2N-pC6H COOR' (II) where each R is 1-20C n-alkyl, -CH2CHO CH2CHOHCH2OC6H5 which can be substd. by up to 3 n-alkyl or one t-butyl group, -CH2CHOHCH2OOCC(CH3)=CH2, -CH (CH2)1-18H or -CH2CH2OH. R' is H or as R or if 3-20C n-al have 1 or 2 methyl substituents at the beta carbon atom. alternatively be a polymeric amine (III) having 10 or less groups which is the reaction product of an amine of formula having one or two groups R/ H with the diglycidyl ether of bis A. (I) can also be the product of hydrolysis of the epoxy groups or the reaction product of (III) with methacrylic or acrylic aci
(I) can alternatively be an amine of formula R2N-pC6H COO-(CH2)n-OOC-CH2-pC6H4-NR2, where n / 1-20 and each R more than 5 alkyl C atoms, or an amine of formula (R2N- p CH2-COO-CH2)mC(CH3)p(H)4-m-p, where m / 2-4 and p / 0 to each R has no more than 5 alkyl C atoms. R' is not H in the poly amines.
When used with a reinforcing filler, the compsn. is a resto dental material. The polyester compsn. is also useful as cement.

D21 38450 A/22 = US 4243-814
mino acid prodn. from amino nitrile - by single stage sis in presence of carbonyl catalyst
CAL R (ANVR) 03.12.76-FR-036520
*C03 E19 (D13 D24) (06.01.81) *BE-861-121 C07c-99/10 C07d-9 C07d-209/20 C07d-233/26*
as 856320 (7pp982)
of an alpha-amino acid comprises hydrolysis of an alpha-trile or its salts. Improvement is that the nitrile or its salt is ed to chemical catalytic hydrolysis by reaction in an aq. of at least one ketone in the presence of hydroxyl ions.

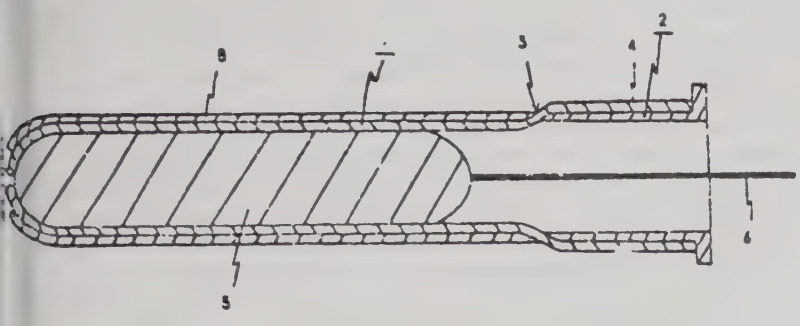
The ketone is introduced into the reaction medium in a proportion of 0.1-2 moles of ketone per mole of nitrile. The hydroxyl ions are introduced so as to attain the equimolarity of the hydroxyl in proportion to the starting nitrile. After formation of the salt of alpha-amino acid, the free alpha-amino acid corresp. to the starting alpha-aminonitrile is extracted.

See Also

D13 US 4243823 D22 J5 5149367 D22 J8 0050674
D22 US 4243670 D25 J8 0050997

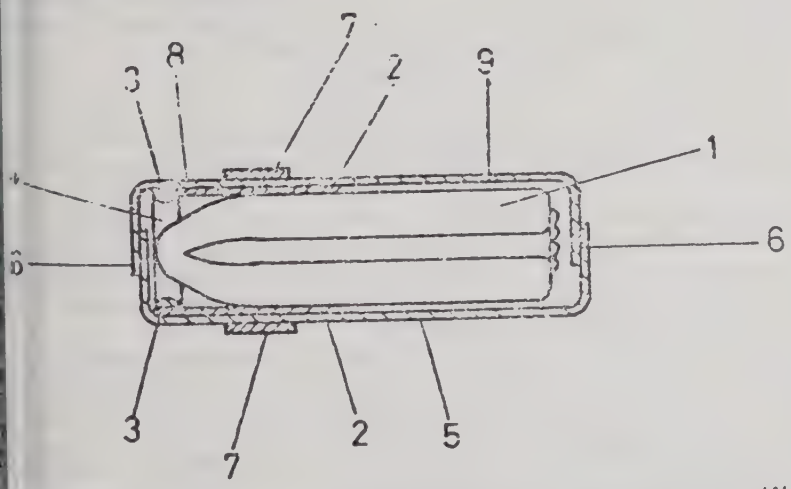
D22: BANDAGES; DRESSINGS

★ D22 03745 D/04 ★BE -885-049
n with telescopic applicator - has external cylinder with ferential slots and plunger with fingers sliding into slots to ampon
) SOAP KK 17.10.79-JP-V43539
(31.12.80) A61f
) as 885049 (11pp958)
mpon has an external cylindrical applicator and an expulsion r sliding inside it. The series of circumferential slots are l around one end of the outer cylinder. The plunger is also rical and has a series of fingers at one end bevond the ent tampon.
width of the fingers is slightly less than that of the slots. In e, the fingers lie along the outside of the cylinder but when the n is to be used, they are introduced into their respective slots tampon can be expelled.



★ D22 D/04 ★BR 7904-026
rant and anti-bactericide for telephone sets
B SANFER AGRICULT(COME-) 26.06.79-BR-004026
1 *(30.12.80) H04r-01/12*

★ D22 03913 D/04 ★DE 2928-356
on packing with automatically distributed lubricant - in sleeve ear of tampon also tear-open strip
HN DR C KG 13.07.79-DE-928356
? *(15.01.81) A61f-13/20*
9 as 928356 (14pp160)

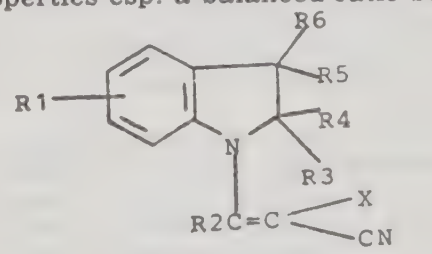


ampon packing for feminine hygiene contains a quantity of a ance separate from the tampon itself and transmitted to it the tampon is put to use. A supporting sleeve (2) encloses the rd end of the tampon (1), and a lubricant (3) is deposited inside rward end of the sleeve, clear of the insertion end of the on.
acking wrapping (5) encloses sleeve and tampon, and a tear-strip (7) encloses part of this wrapping enclosing the sleeve rd end.

MOLN ★ D22 03982 D/04 ★DE 3023-776
Disposable baby napkin with enveloped elastic thread structure - ensures adequate tightness without chafing of child's skin (NL 6.1.81)
MOLNLYCKE AB 02.07.79-SE-005765
F07 P21 (15.01.81) A41b-13/02
25.06.80 as 023776 (19pp1045)
The sides of the permeable and impermeable layer forming a disposable baby napkin, widen out from the crotch section on each side of the absorbent material between them, towards the rear end.
At least one pretensioned, elastic V-shaped element is provided, the point of wbich is in the centre of the front end. From there, the sides of the elastic element extend closely along the diverging edges to the rear end, so that in wear, the edges are closely in contact with the child's seat, and a high degree of security is given against leakages to the outside.

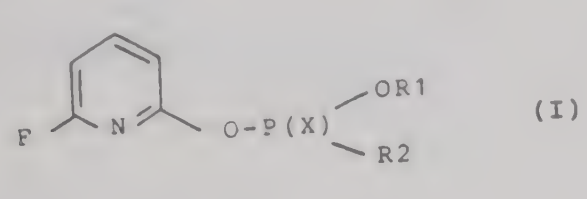
NITL D22 49538 B/27 = DS 2833-290
Antibacterial and antifungal materials - contg. polymer having acid gps. and quat. ammonium cpd.
NITTO ELECTRIC IND KK 22.12.77-JP-155294
*A97 C03 (15.01.81) *GB2010-851 C08k-05/19 C081-09 C081-25/04 C081-27/06 C09d-05/14 + C081-23/04*
28.07.78 as 833290 (8pp)
Antibacterial and antifungal compsn. comprises a solid polymer (mol. wt. 10000 or more) having acidic functional groups (at least about 0.008 mmole/g), to which antibacterial and antifungal quat. substd. NH4 ions are ionically bonded (0.0002 mmole/g). The carrier comprises a copolymer of monomer having an acidic functional group and monomer with no acidic component. The quat. NH4 ion content is about 0.01-10 wt.% based on the copolyme copolymer. The prods. are obtd. as films, foil, laminates or fibres.(US)

FARB D22 88504 C/50 = EP --21-004
Non-yellowing, weather resistant medical casts - comprising web impregnated with tert-nitrogen contg. polyurethane contg. substd. indoline and/or substd. oxalanilide light stabiliser
BAYER AG 25.05.79-DE-921163
*A96 E13 P32 P34 (E14) (07.01.81) *DE2921-163 A611-15/07 + C08k-05/34 C081-75/12*
14.05.80 as 102683 (25pp1045) (G) DE2737670 DE2737671 CH-478878 DS1568541 FR2369830 DE2651089 E(AT BE CH DE FR GB IT LI NL SE)
Self-hardening material for prepg. weather resistant, non-yellowing casts for medical or veterinary use comprises an air permeable, flexible web coated with 50-300 wt.% (w.r.t. web) NCO prepolymer prepd. from aromatic polyisocyanates and tert.-N contg. polyols with a NCO content of 5-30 wt. % and a tert.-N content of 0.01-2.5 wt.% contg. 0.05-3 wt.% (w.r.t. prepolymer) substd. indoline of formula (I) (where R1 is H or methoxy, R2 is H or Me, R3-6 are H or Me or R4 and R5 together form a satd. 6-membered ring, X is cyano, COOR7 or CONR8R9, R7 is 1-8C alkyl and R8 and R9 are H or Me) and/or substd. oxalanilide of formula (II) RRC6H3NHCOCONHC6H3R'R' (where R and R' are 1-15C alkyl or alkoxy and R and R' are H or as R) as light stabilisers..
Casts are non-yellowing, weather resistant and have excellent mechanical properties esp. a balanced ratio between stiffness and elasticity.



(I)

BADI D22 00151 D/01 = EP --21-041
6-Fluoro-2-pyridyl-thio- and di:thio-phosphate derivs. - prepd. by reacting a 6-fluoro-2-pyridinol salt with a (di)-thio:phosphoryl chloride, useful as insecticides and nematocides
BASF AG 15.06.79-DE-924150
*B03 C01 E11 (07.01.81) *DE2924-150 A01n-57/16 C07f-09/58 + C07d-213/64*
21.05.80 as 102812 (26pp280) (G) US3810902 US3743648 DE2358760 E(AT BE CH DE FR GB IT LI LU NL SE)
6-Fluoro-pyridyl phosphoric acid derivs. of formula (I) are new:
(X is O or S;
R1 is 1-3C alkyl;
and
R2 is 1-6C alkylthio or mono- or di(1-3C alkyl)amino)..
Cpds. (I) are pesticides with insecticidal and nematocidal activity. They can be used in plant protection, as well as in the hygiene, stored prods. protection and veterinary sectors.

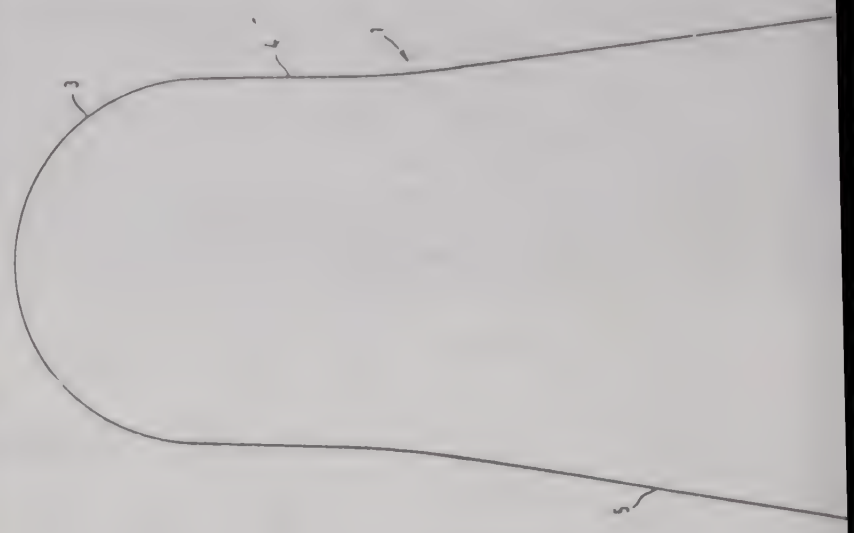


(I)

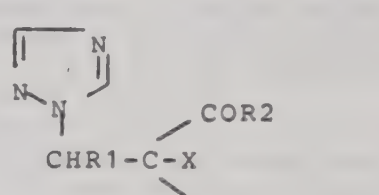
FARH D22 00061 D/01 = EP --21-130
Insoluble swellable crosslinked etherified polyvinyl deriv. prodn. - useful as water and moisture absorbent and retainer
HOECHST AG 09.06.79-DE-923430
*A14 F01 + P34 (07.01.81) *DE2923-430 C08f-08 + A611-15*
02.06.80 as 103055 (20pp016) (G) 1.Jnl.Ref E(BE DE FR GB IT NL)
Prodn. of swellable, crosslinked and etherified polyvinyl derivs. (I), which are over 40 wt.% insol. in water, involves etherification of polyvinyl acetate (PVAc) with previous, simultaneous or subsequent crosslinking with crosslinking agent (II) at least bifunctional towards OH gps. in aq.-alkaline medium, opt. contg. an organic solvent (III). It is pref. to use 1.0-3.5 (1.5-2.5) mole alkali hydroxide, 0.5-5.0 (1.0-3.0) mole water, 0.01-0.5(0.05-0.3) mole (II) and 0.1-1.5 (0.5-1.2) mole etherifying agent (IV) per mole PVAc and opt. 4-40 (6-30) wt. pts. (III) per wt. pt. PVAc..
Cpds. (I) are specified for use as water and moisture absorbents and retainers. They are useful for baby care, tampons, medical and hospital applications, artificial leather for footwear, bags, upholstery, outer clothing and household applications or for covers (tent material, tarpaulins), for which they have the required liquid absorption and swelling capacity.

FARH D22 90370 C/51 = EP --21-131
Swellable crosslinked PVA ether prodn. with limited water solubility - useful for absorption and retention of aq. fluid, e.g. in baby care, tampons, and medical and hospital applications
HOECHST AG 09.06.79-DE-923435
*A14 F06 + P34 (A96) (07.01.81) *DE2923-435 C08f-08 + A611-15*
02.06.80 as 103056 (18pp016) (G) 2.Jnl.Ref E(BE DE FR GB IT NL)
Prodn. of swellable crosslinked ethers (I) of PVA, which are over 40 wt. % insol. in water, involves etherification of PVA and previous, simultaneous or subsequent crosslinking with reactive crosslinking agents which are at least bifunctional towards the OH gps. of the (etherified) PVA in aq. alkaline medium, opt. contg. an organic solvent. The amts. used are 0.1-0.8 (0.25-0.5) mole alkali hydroxide, 0.5-5.0 (0.7-3.0) mole water, 0.001-0.05 (0.002-0.02) mole crosslinking agent and 0.01-1.0 (0.1-0.4) mole etherifying agent per mole PVA and opt. 0.01-1.0 pts. organic solvent per wt. pt. PVA..
(I) are useful for baby care, tampons, various medical and hospital applications and for increasing the water vapour absorption and/or permeability of artificial leather and textiles, esp. for shoes, leather goods, upholstery covers, clothing, household textiles, tenting and tarpaulins.

INTE- ★ D22 04183 D/04 ★EP --21-343
Bag for ostomy patients - made of seamless PVC by dip coating process
INTERMEDICAT GMBH 21.06.79-DE-U17734
A96 P32 (07.01.81) A61f-05/44
19.06.80 as 103405 (7pp39) (G) OE1918876 GB1277432 DE2345227 FR1113210 US1656328 US2527321 US2549649 E(AT BE CH DE FR GB IT LI LU NL SE)
Bags for patients with an artificial opening in the alimentary channel after an ostomy are made of a flexible thermoplastic material preferably PVC as a seamless container by a dip coating process. Its closed end is semicircular in shape, followed by a section with parallel and finally conically divergent walls. The bag is flattened and has a reinforced rim at the open end.
The use of PVC makes the bag odour-proof; its seamless rim allows no gas to escape and makes it comfortable to wear with a belt. It is unobtrusive because it does not crackle..



FARH ★ D22 04197 D/04 ★EP
1-Tetra:substd. ethyl 1,2,4-triazole derivs. - used as fungicid against true mildews
HOECHST AG 27.06.79-DE-925896
C02 E13 F09 (07.01.81) A01n-43/64 C07d-249/08 C07d-403/0 405/06 C07d-407/06
21.06.80 as 103490 (25pp941) (G) DE2831235 E(AT BE CH DE FR NL SE)
1-(CHR1-C(X)(COR2)(COR3))-1,2,4-Triazoles of formula (I) are
(R1 is 1-12C alkyl, cycloalkyl (pref. 5-6C), cycloalkenyl (pref phenyl (opt. substd., esp. by 1-3 alkyl (pref. 1-12C), haloge alkoxy, hydroxy, nitro or di-(pref. 1-6C)-alkylamino gps.), fu thienyl or pyridyl;
R2 and R3 are 1-12C alkyl, cycloalkyl (pref. 5 or 6C), pheny substd., esp. by 1-3 alkyl (pref. 1-12C), halogen, 1-5C alk hydroxy gps.), 1-12C alkoxy, 5-6C cycloalkoxy or benzyloxy;
X is bromine or pref. chlorine)..
(I) are pesticides, esp. fungicides. They are useful for curin diseases in which fungal infection bas already penetrated i plant tissue, and are effective against Phytophthora infe Fusicladium dentriticum, Plasmopara viticola, Piricularia o Puccinia triticina and esp. true mildews. They are esp. against benzimidazole carbamate-resistant mildews.
(I) are also useful for technical applications, e.g. in protection, in paints or as preservatives, e.g. for metal-workin lubricants.



(I)

FARH ★ D22 04199 D/04 ★EP
Hydrophilic graft polymer from animal protein - and monomer, with high water uptake or retention
HOECHST AG 30.06.79-DE-926568
A11 F06 (A96) (07.01.81) C08f-289
21.06.80 as 103492 (20pp510) (G) US3262893 FR1314666 US FR1141393 FR--72356 GB1146544 FR2000172 2.Jnl.Ref E(DE IT)
Hydrophilised graft polymers are prepd. by reacting (a modified, comminuted, animal prods. contg. or consisti proteins with (b) vinyl monomers carrying acid, basic o substits. Reaction is in a liquid medium, using radical or initiators, or energy-rich irradiation..
Use of the polymers for uptake and/or retention of aq. liqu moisture is claimed. Uses are, e.g. in baby care; in medicine sanitary towels. A further appln. is to increase the water v uptake and/or permeability of nonwoven fabrics, and supporting flat polymer goods or coatings, e.g. in footwear, le goods, table cloths and mopping cloths. (a) The claimed a prods. are collagen, leather waste, chrome leather parings, an fibres.

NIRA D22 35563 B/19 #GB 15
Polymer articles prodn. with reduced thrombogenic tendency treating with soln. of synthetic fibrinolytic cpd.
UNITIKA KK 31.10.77-DE-748858 (19.10.77-GB-043467)
*A96 B04 + P32 P34 (B05) (21.01.81) *DE2748-858 A61k-47*
9..0..7 as 43467 19pp924)
Prepn. of an antithrombogenic material comprises treati polymeric material with a soln. of a synthetic fibrinolytic cp

fibrinolytic cpd. to bond to or adsorb on the polymeric Pref. fibrinolytic cpd. is a 1,2-diphenylpyrazolidine, an ic acid deriv, a salicylic acid deriv., a cinnamic acid deriv. aryl substd. aliphatic acid.

olymeric material has a reactive functional gp. capable of a covalent bond. Pref. material is polyacrylic acid, ic acid, polyglutamic acid alginic acid, polyethyleneimine, acryloyl chloride, a polymer of bisphenol A and hydrin, polyacrolein or polymaleic anhydride.

rt disadvantages are avoided, and the process provides a d effective antithrombogenic material. The material has a n effect when used in contact with blood e.g. as a catheter.

D22 68422 Y/38 = GB 1583-098

stener for disposable diaper - having release back and adhesive regions on front and folded prior to use

GATE PALMOLIVE CO 19.08.76-US-715783

*P21 P23 (21.01.81) *US4047-529 A41b-13/02*

as 034550 (7pp1376)

ble diaper has a tape strip divided into three sections d to theabsorbent pad. The strip is folded and has adhesive ase surfaces arranged specifically in the 3 sections such that strip is folded before use without the need for disposable strips.

the strip is secured to the pad with the first fold near a side iaper is cheaper and simpler to use.

★ D22 04341 D/04 ★GB 2051-814

yl-N'-halophenyl-P-imidazolyl phosphono:thioic di:amide repd. from phosphoramido:thioic di:chloride, N methyl halo-aniline and imidazole

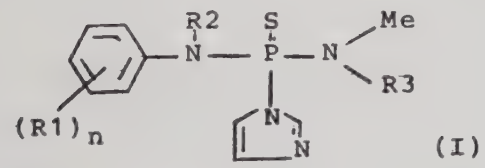
CHEMICAL CO 20.06.79-GB-021480

C01 E11 (21.01.81) C07f-09/65

as 021480 (5pp 985)

N-methyl-N'-R2-N'-halophenyl-P-(1H-imidazol-1-yl) nothioic diamide derivs of formula (I) are new. In (I) R1 is or fluoro; R2 is 1-4C alkyl, benzyl or allyl; R3 is 1-8C alkyl or yne; n is 0, 1 or 2;provided that when n is 0 R3 is prop-2-yne or s at least 5C or R2 is allyl or benzyl.

ibit high fungitoxicity and so ful in the control of fungi esp cherry leaf spot, apple scab, rice owdery mildew, Helminthosporium and late blight. (I)can be to the soil, to wood surfaces (for the control of the ntering spores of fungi)and to the seeds (to protect them from mildew). (I)can also be used to protect substrates such as dhesives, soaps, cutting oils, polymers, oils, latex paints ,, cellulosic materials and wood and lumber prods. from attack.



(I)

★ D22 04515 D/04 ★J5 5147-218

of ultrafine fluorocarbon emulsion for medicinal use - by ifying intramolecularly having cyclic structure or contg. atom. using carboxylic acid amide amine oxide surfactant

EEN CROSS CORP(DNIN) 00.00.80-JP-046582 (16.03.73-JP-958)

B05 (B03) (17.11.80) A61k-09/10

3 as 046582 80 Div.ex 29958/73 (4pp5)

n fluorocarbon emulsion of medicinal use showing oxygen-orting ability, is prepd. by emulsifying 9-11C fluorocarbon has at least one cyclic structure or one hetero-atom olecularly, using carboxylic acid-amide -amineoxide-type ttant of formulaRf-CO-NR1-R2-N(O)R3R4 (I).

) Rf is 4-25C perfluoroalkyl, R1 is H atom or 1-6C alkyl group. -6C alkylene,R3 and R4 are each 1-6C alkyl 2-6C hydroxyalkyl y together form piperidino group with N.

ulsion containing ultrafine fluorocarbon particles of diameter 0.2 microns, can be easily obtained. The emulsion is stable and suffers from aggregation during preservation or heat-sation. Fluorocarbon can be smoothly discharged and hardly ulates in internal organs. The emulsion shows oxygen-orting ability and can be used as the substitute blood for mals or as the perfusing liquid of internal organ-preserving

) ★ D22 04580 D/04 ★J5 5147-512

. of hydrogel with high water absorbability - comprises ymerising water soluble salt of meth)acrylic acid with water ible ethylenically unsatd. mcnomer e.g. maleic acid

MITOMO CHEMICAL KK 08.05.79-JP-056637

4 (A13 A97) (17.11.80) C08f-220/06

79 as 056637 (4pp22)

ater soluble (meth)acrylic acid salt is of sodium, potassium,, lithium, calcium, magnesium, ammonium etc. The copolymerisable monomer is e.g. (meth)acrylic, maleic or fumaric acid and unsatd. carboxylic acid esters, styrene, acrylonitrile, vinyl ester, etc. The ratio of water soluble salt/copolymerisable monomer is 95-10/5-90 by wt. pref. 85 to 20/15 to 80 by wt.

The copolymerisation is conducted with the use of a conventional catalyst such as a redox catalyst under known conditions and by known techniques.

CHCC ★ D22 04752 D/04 ★J5 5148-560

Deodorant with high active at normal temp. - comprises hydrated glyoxal and expanded vermiculite in powder, paste or slurry form etc.

CHISSO CORP 10.05.79-JP-057456

*P34 (19.11.80) A61l-09/**

10.05.79 as 057456 (5pp117)

A deodorant consists of hydrated glyoxal (except for a buffer-modified glyoxal) whose pH is regulated to 5-9 and an expanded vermiculite of an expansion rate of 5-50 folds and a grain size of 0.5-7 mm. on average. The deodorant is in powder, paste, slurry, or plastic form.

The glyoxal used is prepd. by regulating the pH of glyoxal aq. soln. (pH 1-3) on the market to 6-8 pref. by neutralisation using an alkali, and also the vermiculite powder used is prepd. by expanding vermiculite powder (0.5 to 7 mm in grain size) on the market by heating to approx. 800 deg.C in a short time to an expansion rate of 2-50 folds, pref. 5-20 folds.

The deodorant has a great power to deodorise offensive odours of any type which are hazardous to our environment at ordinary temp. and under atmospheric pressure.

LIOY ★ D22 04954 D/04 ★J5 5149-367

Sterilising softening agent compsn. - contg. di:alkyl quat. ammonium salt and alkyl ether sulphate

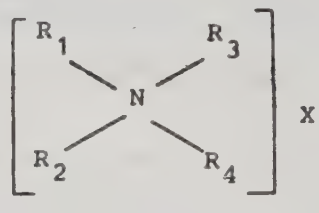
LION CORP 10.05.79-JP-056342

A87 E19 F06 (A25 A96 D21) (20.11.80) A01n-33/12 A61k-07/08 C09k-03 C11d-03/48 D06m-13/46

10.05.79 as 056342 (4pp136)

Compsn. contains (1) dialkyl type quat. ammonium salt of formula (I) and (2) alkyl ether sulphates of formula RO(CH2CH2O)nSO3M (II) in wt. ratio component (1) to component (2) of 98:2-80:20.

In the formulae, R1 and R2 are each n or branched alkyl; R3 and R4 are each 1-3C alkyl, benzyl or 2-4C hydroxyalkyl gp.; X is monovalent anion; R is 5-16C n- or branched alkyl; n is 1.5-8; and M is alkali metal. Addn. of (2) improves the sterilising property of (1). Compsn. is used as fibre softening agent and hair rinse.



(I)

NISY D22 27268 A/15 = J8 0050-674

Powdered sorbic acid of improved handling properties - obtd. by mixing sorbic acid or a double salt with glycerine

NIPPON GOHSEI KAGAK 05.10.76-JP-120538

*B05 C03 E17 (D13 D21) (19.12.80) *DE2744-243 A23l-03/34 + A01n-37/06*

05.10.76 as 120538 (2pp967)

Sorbic acid compsn. comprises (a) sorbic acid or its double salt and (b) 0.05-5 pts. wt. glycerine per 100 pts. wt. (a).

The sorbic acid compsn. can be used to inhibit the growth of moulds and microorganisms e.g., as a preservative in foodstuffs, medicaments and cosmetics. The prepn. can also be used as a fungicide. The finely powdered sorbic acid or double salt (of particel size less than 100 microns) has improved processing properties, does not dust or scatter during handling and has no unpleasant smell. The prod. can be easily worked into foodstuffs and the addn. of glycerin does not affect the antiseptic properties of sorbic acid.

In an example, aq. glycerin soln. was added to finely powdered sorbic acid of particle size 5-30 microns. (J53047524)

NITL D22 20586 A/11 = J8 0050-790

Composite material for sanitary or table napkin etc. - comprise porous synthetic resin pref. of polyethylene terephthalate contg. fine yarns and soln. absorbing support

NITTO ELECTRIC IND KK 19.07.76-JP-086467

*A94 F07 P32 P34 P73 (A96) (19.12.80) *J53011-981 + B32b-27/12*

19.07.76 as 086467 (4pp90)

Composite material comprises porous synthetic resin (A) leaf-like matter, on whose surface is a number of fine synthetic resin yarns (B), and soln. absorbing support (C) aminated with (A) through (B).

Pref. (B) is formed on the periphery of pores of (A). (A) pref. consists of double layers of highly water-repellant matter and leaf-like substances. (C) pref. consists of solution-absorbing and diffusing sheet and solution-absorbing pad which are laminated each other in a releasable state, pref. unwoven cloth of interlocked fibre.

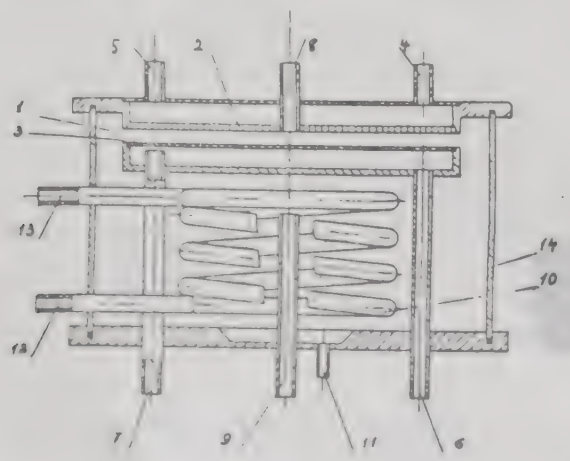
These materials useful as sanitary napkin, solution-absorbing table napkin, surgical treating materials, etc. are simply and cheaply prepd. with improved yield. (J53011981).

KIMB ★ D22 05081 D/04 ★NL 8003-573
Disposable baby napkin with impermeable outer polyethylene film - having internal adhesive layer which permits unfastening and secure re-fastening
KIMBERLY CLARK CORP 22.06.79-US-051048
A96 F07 P21 (24.12.80) A41b-13/02
20.06.80 as 003573 (20pp1014)
In the proposed zones of the film in which the contact-adhesive-coated strips for the fastening of a disposable baby napkin, are to be pressed for use, and on the internal surface of the film, a layer of heat-meltable adhesive e.g. polypropylene is applied uniformly. The layer has a thickness which is adequate to raise the resistance to shear and the elastic limit of the combined adhesive and film, in the proposed zones, to points above those of the film alone. These are sufficient to allow the strips, after they have been fastened on, to be torn off again, without the surface of the film in these zones being damaged.

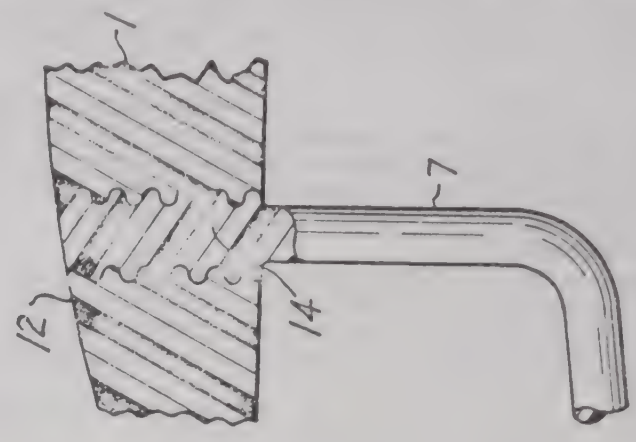
The adhesive layer has a lower modulus of elasticity than the film. The napkins are of the type comprising an absorbent pad between a front sheet of a material permeable by fluids, and a back sheet formed by a thin impermeable film. A pair of tapes coated with a contact adhesive is fixed one at each of two corners of the napkin, and they have a higher resistance to tearing off than the tensile strength and resistance to shear of the film. Used to ensure that whilst once fastened, the napkin will not work loose and release the fastening tapes. The tapes can be torn off without damaging the film, and after inspection or adjustment, the tapes can be securely reaffixed.

MIRA- ★ D22 D/04 ★RO --68-155
Skin protection against solvent contg. petroleum derivs. - with aq. compsn. contg. sodium carboxymethyl cellulose, glycerol, polyethoxylated fatty alcohol, emulsifier and methyl para-hydroxy-benzoate
MIRAJ INTR PROD COS 09.07.75-RO-082807
A96 (20.10.79) A61k-07/40

ASPH= ★ D22 05199 D/04 ★SU -735-280
Air sterilising equipment for removing bacterial aerosol particles - has parallel disc-shaped plates at different temps. to evaporate and condense steam
AS PHYS CHEM INST(MODE =) 08.02.77-SU-451481
(25.05.80) B01d-45/18 C12k-01
08.02.77 as 451481 4pp29)
Sterilisation of air is achieved by using equipment which removes bacterial aerosol particles. The equipment is used in the medical and microbiological fields. It comprises parallel, horizontal plates at different temps. for evapn. and condensation of vapour(steam), with pipes to admit the dirty air and take away the clean air. The quality of the cleaning is improved, on account of eliminating the influence of boundary effects on the process of complete pptn. of particles, by making the plates as discs inside a sealed body. The gas-feeding pipe is placed in the centre of the upper evapn. disc. The radius of the discs, the distance between them and the radius of the feed pipe, with cleaning parameters are related by an equation.



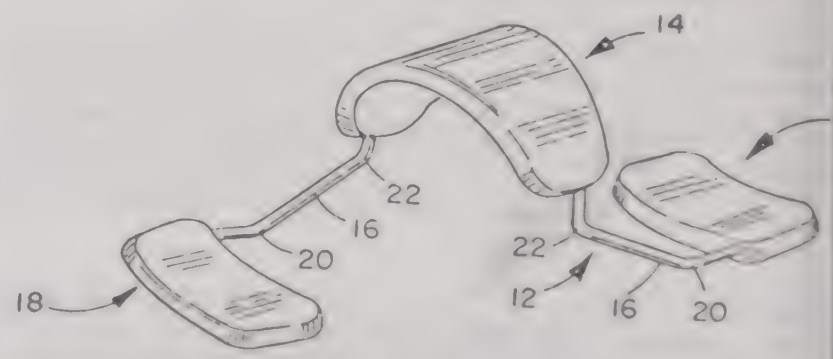
HEYE- ★ D22 05391 D/04 ★US 4242-761
Intra-ocular lens with retention loop - having integral shanks screwed into threaded recesses in optical section
HEYER-SCHULTE CORP 25.07.79-US-060529
A96 P32 (06.01.81) A61f-01/16
25.07.79 as 060529 (4pp1358)
Lens has an optical section with a pair of spaced threaded and a retention loop with two integral spaced thread extending into tbe recesses to lock the loop to the section and shanks are pref. of polypropylene and the section is of
The recesses pref. extend completely through the sectio shanks have in situ formed threads. The loop is pref. s stiff so that each shank acts as an anchor preventing motion of the other shank. The recesses pref. each have a diameter of 0.004-0.020 incb and 100-300 threads/ inch. The more than one such loop.



MAJS- D22 68510 B/38 = US
Sterilising and vacuum sealing rack - esp. for linen in plas has auxiliary racks to speed up operation
M A J SOC & R L (MAJM) 13.03.78-FR-007107
*P34 Q31 + Q32 Q34 (06.01.81) *EP---4-239 B65b-31/02 B65*
09.03.79 as 019085 (9pp1376)
Sterilised prods. are packed in a machine including paral supported on a rack between adjacent pairs of which packa at one end are supported, and compressing members mounte bars which move together to seal the packages. The packa supported in the machine on a further rack which can be slid main rack. The device operates in an autoclave to pack linen.
The compressing members are pref. connected to compre and electric circuits. Linen can be packed without creas package.

FORD- ★ D22 05409 D/04 ★US
Liver perfusion in portable container - with ice surroundi vessel and perfusate reservoir
HENRY FORD HOSPITAL 02.04.79-US-025774
(06.01.81) B01f-03/04
02.04.79 as 025774 (4pp295)
Liver is coupled to a manifold and placed in a vessel. Perfu connected to the manifold via an intermittently opening s valve controlled by a timer. The appts. is enclosed in a p container carrying ice to cool the perfusate and liver-holding
Typically the perfusate is delivered at 8 mmHg at a ra ml/min. The timer interval is 2 mins. Pref. the perfu albumin/Plasmanate.
The appts. is used for preserving and transporting a li transplantation.

BARB/ ★ D22 05423 D/04 ★US 4
Adjustable finger splint - of spring steel wire with central a and end support surfaces joined by arms
BARBER L M 05.10.78-US-948869
A96 P32 (06.01.81) A61f-05/10
05.10.78 as 948869 (7pp1358)
A splint permitting limited movement has a pair of arcuat extending oppositely from the ends of a central arcuate cupping part of the dorsal or ventral finger surface. The extend along the finger and end in a pair of generally recta



end supports either under the finger for extension or on top finger for flexion.
The splint is other wise open and is made of a single piece of steel wire bent into shape and with the arms bandab adjustment. The central section and end supports are covere

ed polyethylene form for comfort, and exposed wire is in a PTFE sleeve. The splint is suitable for all fingers and

★ D22 05427 D/04 ★US 4243-041
rapy pack after facial surgery - goggles and nose piece of lastic sheet and contg. hydrophilic gel
L M D 05.04.79-US-027447 (10.09.76-US-722188)
(06.01.81) A61f-07
as 027447 (+ 23.12.77-US-864030)(5pp1358)
relative pain and swelling after cosmetic facial surgery has shaped eyepieces joined by a nose bridge and consisting of rmoplastic sheets heat-sealed to form a hydrophilic gel tment. A separate nose pack has a number of hydrophilic gel rs with fasteners.
ack is securable tightly around the head with hook and loop astener straps. An arch in the bridge is pref. maintained by a rong wireclip. The nose pack is made from thinner inner and outer thermoplastic sheets sealed peripherally and centrally two gel chambers on either side of the centre.

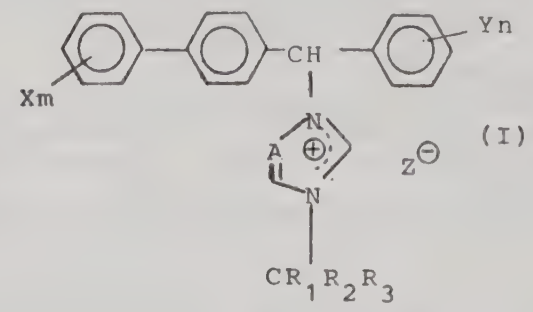
D22 27008 A/15 = US 4243-567
rboxylate based cement contg. water soluble glass - for l and constructional use
TH & NEPHEW LTD 18.11.77-GB-048193 (03.12.76-GB-78)
*L02 P34 + P32 (A93) (06.01.81) *BE-861-507 + C08l-33/02*
as 856938 (+ 03.06.77-GB-023789) (6pp965)
of a cement comprises contacting (a) particles or fibres of a ate or borate glass; (b) an opt. partially crosslinked rboxylic acid) (precursor); and (c) an aq. medium. (a) s at least 1 multivalent metal (pref. Zn, Al, Ca, Mg, Ba, Fe, or V), and is soluble in aq. conditions forming at least 1 e component capable of reacting with (b), pref. are B2O3-2O5-ZnO, P2O5-ZnO-Al2O3 glasses and a glass contg. 35-50 % B2O3, 0-15 mole % Al2O3 and 10-65 mole % ZnO. Pref. glass s of max. dia. 75 microns are used. Pref. (b) is a polymer of acid or anhydride.
slinking ions are provided by (a). The cement is esp. for l uses, e.g. prodn. of splinting bandages, but may also be used constructional purposes.

★ D22 05566 D/04 ★US 4243-632
t lens disinfector has temp. indicator - comprising viewing w and positionally temp. dependent, pivotally mounted, atic lens and temp. indicia
DER INT CORP 22.06.79-US-051121
01.81) C01b-25/10 C01d-01/32 C01f-01
9 as 051121 (6pp67)
sinfector comprises a housing having a heater for heating the t lens to a disinfecting temp. and a temp. indicator for ting the temp. condition, hot or cold, of the lens. The temp. tor comprises a prismatic lens and temp. indicia pivotally ed in the housing behind a viewing window through which the indicia are observed.
temp. indicia indicates if the lens is hot and unsafe for al or if it has cooled sufficiently for safe removal.

/ D22 86229 B/48 = US 4243-656
thetic polymer compsns. and film - for covering of burns, s, cuts etc., contains acrylic polymer and protein
LLICZEK E G 30.10.78-AU-006580 (19.05.78-AU-004440)
*P34 (A14) (06.01.81) *DE2919-923 A61l-15 + A61k-31/78*
9 as 037474 (6pp924)
nthetic polymeric compsn. adapted to form a vapour able film, includes (a) 10-40 wt.% of a water dispersible acrylic er contg. 50-500 monomeric units, (b) 2-30 wt.% of a humectant ed from glycerol, polyethylene glycol and propyl-1,2-diol, (c) wt.% of gelatine, gum acacia or albumin, and (d) 30-87.5 wt.%

vapour permeable film is produced by pouring the compsn. liq. film and allowing the film to polymerise and harden. Pref. ngthening mesh matrix is dispersed throughout the obtd. film. ompsn. is suitable for the treatment of burns or other wounds, ay be applied directly or in the form of the prepd. film.

FARB D22 25540 A/14 = US 4243-670
Alpha-4-bi:phenylyl benzyl azolium salts - are fast acting antimicrobials and sporicides (BE 28.3.78)
BAYER AG 28.09.76-DE-643563
*B03 C02 E13 + P34 (D21 D25) (06.01.81) *DE2643-563 A01n-43/26 C07d-233/56 C07d-249/08*
23.02.79 as 0(+ 05. 9.77-US-833630) (9pp977)
Alpha-(4-Biphenylyl)-benzylazolium salts of formula (I) are novel. In (I), A is CH or N; R1 and R2 are H, 1-4C alkyl, or phenyl opt. substd. by halogen, 1-6C alkyl, 1-4C haloalkyl, 1-4C alkoxy, 1-4C alkylthio, nitro or cyano; R3 is opt. substd. phenyl or biphenyl, phenalkyl, phenylcarbonyl or phenylcarbonylalkyl (where the substits. are F, Cl, Br, 1-6C alkyl, 1-4C haloalkyl contg. up to 5 halogen atoms, 1-4C alkoxy, nitro or cyano); X is halogen, 1-6C alkyl, 1-4C haloalkyl contg. up to 5 halogen atoms, 1-4C alkoxy, 1-4C alkylthio, nitro or cyano; Y is as X or opt. substd. phenyl.
(I) exhibit antimicrobial activity and sporicidal activity.



AMCY D22 37088 C/21 = US 4243-775
Copolymer having glycolide and tri:methylene carbonate units - useful in mfr. of surgical repair articles, e.g. sutures and ligatures
AMERICAN CYANAMID CO 13.11.78-US-960264 (23.05.77-US-799836)
*A96 + P31 P34 (A23) (06.01.81) *GB2033-411 C08g-63/08 + C08l-67/04*
13.11.78 as 960264 (7pp937)
Sterile surgical articles are made from synthetic absorbable copolymer that is copolymerised from glycolide as the predominant monomer with a cyclic ester monomer pref. L(-)lactide, 1,4-dioxane-2,3 dione, 1,3-dioxan-2-one, lactones, oxalate or carbonates. The improvement comprises using sequential addn. of monomers in the polymerisation, where the glycolide or cyclic ester monomer is completely polymerised before the addn. of other monomer.
Pref. the copolymer comprises sequential units -OCH2C(:O)OCH2C(:O)- and up to 50 wt.% -(-(CH2)3OC(:O)-)-; and the copolymer has a melting pt. of 217-221 deg.C as described by a peak in a differential scanning calorimeter operating at a heating rate of 10 deg.C per minute with an inherent viscosity of 0.5-2 pref. 0.7-1.2 dl/g.

SNAM D22 08021 B/05 = US 4243-776
Biocompatible polymers prepn. - esp. for prevention of platelet aggregation and thrombus formation
SNAMPROGETTI SPA 27.07.77-IT-026191
*A96 B07 P32 + P34 (06.01.81) *BE-869-323 C08g-69/46*
21.06.78 as 917568 (4pp937)
A polymer surface is rendered non thrombogenic by chemically binding a platelet anti aggregative agent chosen from 4,5-diphenyl-2-bis(2 hydroxyethyl)amino oxazole or 4,8-dipiperidino-2,6-diethanolamino pyrimido-5,4-d pyrimidine.
The polymer is chosen from nylon polyamides, cellulose polymers or polyacrylates and is subjected to hydrolysis with the platelet aggregative agent to chemically bind the agent. The agent is functionalised without losing its pharmacological properties; the polymer in the form of fibres is used as a biocompatible sound, tube, membrane or artificial organ.

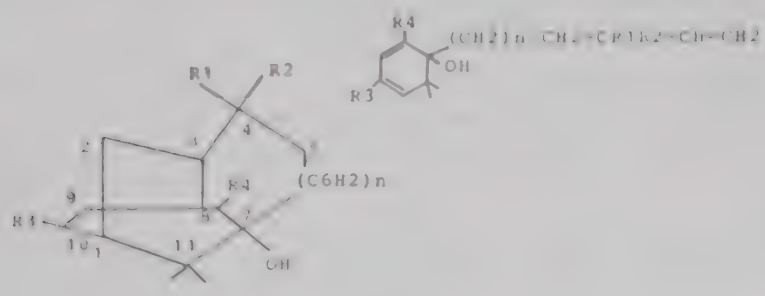
See Also
D21 DE 2928007 D21 US 4243763

D23: OILS; FATS; WAXES

D23 19174 X/11 = DS 2537-417
clic sesqui-terpene deriv prodn - from use in perfumery
RMENICH SA 23.08.74-CH-011503
*5 (15.01.81) *DE2537-417 C07c-35/22*
75 as 537417 (9pp068)

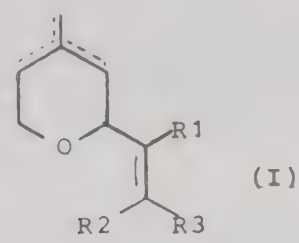
Cpds., useful in perfumes, of formula (I) the dotted line represents a single or a double bond; R1,R2,R3 and R4 each are H or 1-6C alkyl and n / 0 or 1 are prepd. by reacting with a strong base an OH cpd. and opt. catalytically hydrogenating the unsatd. prod.
Pref. cpds. include 4,8,11,11-tetramethyl tricyclo(4.3.1.0-3,8)

undecan-7-ol or Patchouli oil.(DS)



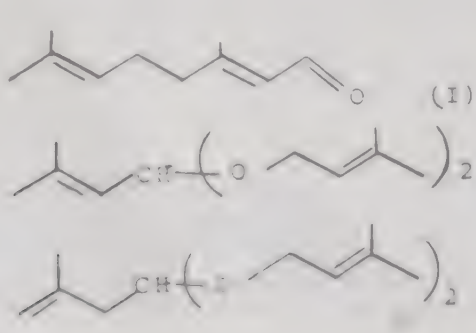
ANIS D23 09473 C/06 = DS 2929-082
Phenolic ether prodn. from phenol cpd. and carboxylic alkyl ester - using a base and (in)organic iodide catalysts (BE 21.1.80)
ANIC SPA 21.07.78-IT-025974
*A60 E14 (D13) (15.01.81) *DE2929-082 C07c-41/16 C07c-43/20 C07c-69/92*
18.07.79 as 929082 (3pp068)
Phenylalkyl ethers are prepd. by reacting a phenol or its deriv. with a dialkyl carbonate at below 160 deg.C in the presence of a base as catalyst, e.g. NaOH and of an (in)organic iodide e.g. potassium or methyl iodide.
The iodide increases selectivity and yield of the ether.(DS)

BADI ★ D23 04077 D/04 ★EP --21-013
2,4-Di:substd. pyran derivs. useful as perfumes - prepd. by acid-catalysed reaction of 3-methyl-3 butenol with substd. alpha, beta-unsatd. aldehyde
BASF AG 21.06.79-DE-925043
E13 (07.01.81) A61k-07/46 C07d-309/22 C11b-09
16.05.80 as 102717 (13pp200) (G) J47014383 J47014382 J52025776 DS1221388 US4071535 3.Jnl.Ref E(AT BE CH DE FR GB IT LI LU NL SE)
New 2,4-disubstd. pyran derivs. have formula (I)
(R1 and R2 each is H or Me; R3 is -CH2OH, -CH2-O-COMe, -CH2-OCHO, -CH2-O-COEt, -COOMe, -COOEt, -COOC3H7, -CH2Cl, -CH2Br, -CH2I or CHO; the dotted lines represent one double bond)..
(I) are used as perfumes, e.g. for cosmetics, washing agents and detergents and for improving the smell of technical prods. (I) have interesting green fragrances with a hint of a spicy, herbal or aromatic note, and can be used as pure prods. or mixts.

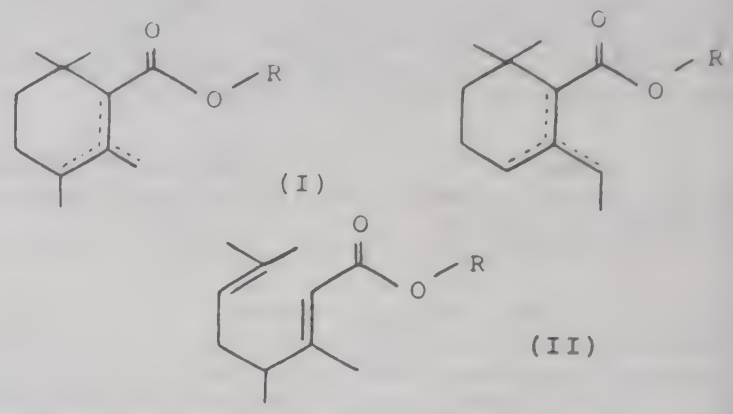


(I)

BADI ★ D23 04092 D/04 ★EP --21-074
Citral perfume prepn. by 3-methyl-butenal di:prenyl acetal pyrolysis - while continuously distilling off prenol by/product to increase yield
BASF AG 30.06.79-DE-926562
E17 (07.01.81) C07c-45/51 C07c-47/21
27.05.80 as 102940 (12pp200) (G) DE2411530 AT-342016 DS2157035 DS2657335 US3978092 FR2274590 E(AT BE CH DE FR GB IT LI LU NL SE)
Prepn. of citral (3,7-dimethyl-octa-2,6-dien-1-al) (I) by the acid catalysed pyrolysis of 3-methyl-but-2-en-al-diprenyl acetal (IIa) or 3-methyl-but-3-en-1-al-diprenyl acetal (IIb) is improved by continuously distilling by-produced 3-methyl-but-2-en-1-ol (prenol) (III) out of the reaction mixt.
The reaction is pref. in the presence of 0.1-10 mol %, w.r.t. (IIa) or (IIb), or an inert liq. (IV) which, under the reaction pressure, boils above (III) but below (I) and intermediates 2,8-dimethyl-5-oxa-nona-1,3,7-triene (V) and 2,4,4-trimethyl-3-formyl hexa-1,5-diene (VI)..
Citral is a perfume. Solvents and diluents are unnecessary. Continuous (III) removal increases the yield of (I), e.g. from max. 60-70% to 85-90%. Further addn. of (IV) can increase the yields of (I) to 95%.

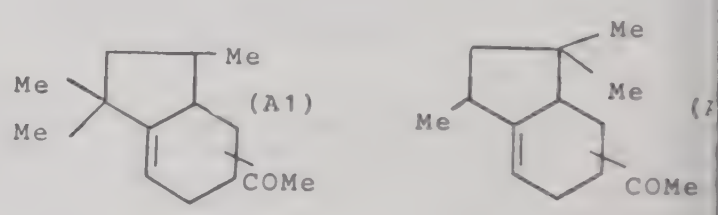

(I)
(IIa)
(IIb)

GIVA ★ D23 04097 D/04 ★E
Perfume- and or flavouring-materials or mixts. - cyclo:hexenoic acid ester derivs. prepd. by cyclis tri:methyl-2,6-octa:di:enoic acid ester derivs.
GIVAUDAN L & CIE SA 24.04.80-CH-003163 (13.06.79-C
E15 (D13) (07.01.81) A23l-01/23 A61k-07/46 C07c-67/33 C0
29.05.80 as 102995 (34pp200) (G) US4147672 US4006108 DE2644762 DS2559957 E(BE CH DE FR GB IT LI NL)
(A) 2,3,6,6-Tetramethyl cyclohexene 1-carboxylic acid formula (I) are new:
(R is 1-4C alkyl or 2-4C alkenyl and one of the three dotted l additional bond).
(B) Mixts. of (I) with a 2-ethyl-6,6-dimethyl cyclohexene-1-ca acid ester or ester mixt. of formula (IV) are new.
(C) 3,4,7-Trimethyl-2,6-octadienoic acid esters of formula also new..


(I)
(II)

Cpds. (I) have organoleptic properties and are used as p and/or flavouring materials, e.g. in perfumes, food, toba drinks, partic. for (i) modifying compsns., e.g. for stressin notes in eau de cologne, flowery notes in rose compsns., musk in women's perfumes or sandal notes in wood-like perfumes f and (ii) giving a fuller, sweeter note to a fruit essence. As fla agents, (I) enhance fruity aroma, esp. the note of fresh Combinations of (I) and (IV) have a radiant, natural fragra can be used as their isomer mixts. (II) are intermediates for (

HENK ★ D23 04187 D/04 ★EP
Acetyl-tri:methyl-bi:cyclo-nonene isomer mixt. perfume - from tri:methyl-cyclopentanone by Grignard reaction, dehy and addn. to methyl vinyl ketone
HENKEL KG AUF AKTIEN 25.06.79-DE-925622
E15 (07.01.81) C07c-01/24 C07c-29/40 C07c-35/06 C07c-45/ 49/55 C11b-09
20.06.80 as 103439 (11pp200) (G) FR2316922 1.Jnl.Ref E(AT BE FR GB IT LI NL SE)
4(5)-Acetyl-7,7,9(7,9,9)-trimethyl bicyclo(4,3,0) non-1-ene mixt. (A) is new. The use of (A) as a perfume and a perfume c contg. 1-50 wt.% (A) is also claimed. (A) is a mixt. of c formulae (A1) and (A2)..
(A)-contg. compsns. are used in perfumery, in comp scenting cosmetics and for improving the smell of technical e.g. cleansers, detergents, soft rinses and textile tre compsns.
(A) has a strong, warm amber fragrance with a woody t leaf, methyl ionone and thuja note and with outstanding persis


(A1)

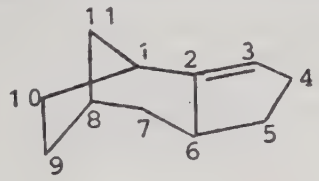
HENK ★ D23 04222 D/04 ★EP
Mono:ene fatty acid-contg. mixt. purification - by poly:en conversion to conjugated acid, selective polymerisation with and distn.
HENKEL KG AUF AKTIEN 02.07.79-DE-926635
E17 (07.01.81) C07c-51/48 C07c-57/02 C11c-01/10
26.06.80 as 103622 (17pp200) (G) DE2942112 GB2032904 FR CA1036720 US3779906 DS2101376 DE2805794 EP---3548 DE27212 18027 E(AT BE CH DE FR GB IT LI NL SE)
Polyene fatty acids are separated from monoene fatty acid- fatty acid and/or fatty acid ester mixts. by (a) converting th unsatd. components to conjugated fatty acids before and/or to with poly-unsatd. component polymerisation, (b) polymeris introducing oxygen(contg.-gas) into the fatty acid mixt. a distilling the reaction prod. to separate the monoene acid cont than 5 (pref. less than 3) wt.% poly-unsatd. components, as

m the polymer-contg. residue..
ocess is esp. used for purifying technical oleic acid. The fatty acid-contg. reaction prod. is free from transation prods. and the cloud point is unchanged.

D23 04520 D/04 ★J5 5147-234
yl-5-methyl-cyclohexanone prodn. - from 2-isopropyl-5-cyclohexenol by an oxidn. and a redn. step
GAWA KK 00.00.80-JP-051802 (24.10.73-JP-118898)
(17.11.80) C07c-45/29 C07c-49/40
s 051802 /80 Div.ex 11889/73 (16pp104)
of (+)-2-isopropyl-5-methylcyclohexanone comprises (+)-2-isopropyl-5-methyl-2-cyclohexenol (II) with oxidant rt the OH gp. to a carbonyl O and reducing the resultant diate by hydrogenation or with metal. Alternatively (II) is nated to saturate the ring double bond, then treated with g agent to convert the OH gp to a carbonyl O.
seful as an intermediate of (-)-citronellol, a perfume. It can d. industrially and economically from inexpensive and available raw materials.

D23 04632 D/04 ★J5 5147-596
. of gummy-contg. vegetable oils - using gum-removing g. phosphoric acid and inorganic porous carrier
USAWA KAGAKU KOG 07.05.79-JP-054725
1.80) C11b-03/10
as 054725 (8pp117)
ying gummy material contg. vegetable oils, e.g. palm oil, gum-removing acid, e.g. phosphoric acid, etc. and an ic porous carrier, e.g. diatomaceous earth, etc. having a fine lume of 0.2 cc/g or more (for a pore dia. of 100 angstroms or nd an average grain size of 0.5 mm or less, are added to a material-contg. vegetable oil in an amt. of 0.01 to 3.0wt.% m-removing acid) and also in amt. of 0.1 to 5wt.% (for ic porous carrier) on the basis of gummy material-contg. le oil. The mixt. obtd. is stirred well at 50 to 150 deg. C for 5 to utes to cause the gummy material-contg. vegetable oil to te inside the inorganic porous carrier. A montmorillonite rant is then added and then the vegetable oil is filtered to both the inorganic porous carrier with tbe coagulated material and the decolourant used.
od does not require a water-washing step, etc. The calcium ate is added to lower the amt. of free fatty acids in the d oil.

★ D23 04877 D/04 ★J5 5149-215
ri:cyclo-(6.2.1.0(2,6)-undec-2-ene - useful in prodn. of es
D SOAP KK 11.05.79-JP-057650
(20.11.80) A61k-07/46 C07c-13/60
9 as 057650 (3pp75)
ricyclo(6.2.1.0(2,6))undeca-2-ene of formula (I) is new. (I) ses a long-lasting woody aroma. (I) may be reacted with d, to provide epoxy compound having a floral aroma, or may jected to hydroboration or oxidation with hydrogen peroxide, ide alcohol compound having camphor-like perfume.



(I)

★ D23 04879 D/04 ★J5 5149-218
2-oxo-6-tri:cyclo (6.2.1.0(2,6)undeca-exo-3-ol - useful as flavour harmaceutical intermediate
O SOAP KK 10.05.79-JP-057463
5 E15 (D13) (20.11.80) A61k-07/46 C07c-35/37
79 as 057463 (5pp140)
2-oxo-6-tricyclo(6.2.1.0(2,6))undeca-exo-3-ol of formula (I) is (I) has a strong camphor-like aroma and is useful per se as ur. It is also useful as intermediate for pharmaceuticals, e.g, 4-isotwistan having antiviral activities can be prepared at high ivity by reacting the tricycloundecanol (I) with n-pentane ate. The tricycloundecanol (I) processes a polycyclic aliphatic ure and, therefore, is expected to exhibit various physiological ties as possessed by synthetic tricyclic aliphatic alcohols such squiterpene alcohols and adamantyl alcohols, e.g.. antiviral ty, antimicrobial activity or plant hormone activity.

(I)

KAOS ★ D23 04881 D/04 ★J5 5149-220
Tri:cyclic ketone cpds. - useful as flavour and as pharmaceuticals with e.g. antiviral, antimicrobial or plant hormone action
KAO SOAP KK 10.05.79-JP-057462
B05 E15 (D13) (20.11.80) A61k-07/46 C07c-45 C07c-49/45
10.05.79 as 057462 (6pp140)
Tricyclic ketone of formula (I) is new, the dotted line being an optional double bond.
The tricyclic ketone (I) has a green floral aroma and is useful per se as flavour. It is also useful as intermediate for flavours and pharmaceuticals, e.g. 4-homoisotwistanre having excellent antiviral activities can be obtd at high selectivity by subjecting (I) where the dotted part indicates a double bond to Wolff-Kishner reduction to prepare a tricyclic olefin having an woody aroma and then reacting this with n-pentane sulphate. It also is expected to exhibit various physiological activities as possessed by synthetic tricyclic aliphatic alcohols such as sesquiterpene alcohols and admantyl alcohols, e.g. antiviral activity, antimicrobial activity or plant hormone activity.

(I)

KAOS ★ D23 04969 D/04 ★J5 5149-395
Continuous purification of oil and fat - by first charging lower alcohol contg. acid catalyst into stirred multistage reactor
KAO SOAP KK 09.05.79-JP-056561
(20.11.80) C11b-03/04
09.05.79 as 056651 (9pp117)
Lower alcohol e.g. (m)ethanol or isopropanol contg. 0.06-0.15 wt. % (based on oils and fats to be treated) acid catalyst, e.g. sulphuric acid, paratoluene sulphonic acid, hydrochloric acid, etc., is continuously charged into a stirred multistage (3-7 stages) reactor divided into three or more chambers by partition plates with small holes for transferring liquid, each being provided with a stirrer, to cause a refining reaction of oils and fats charged in the said stirred multistage reactor at 67 deg.C or less. Oils and fats so purified are drawn with excess lower alcohol contg. the acid ctalyst out of the reactor and then sepd. into the purified oils and fats and the lower alcohol which is in turn mostly recycled to the raw material inlet of the reactor in a proportion of 40-200 pts./100 pts. of oils and fats charged.
Method not only removes free fatty acids by lowering the acid value due to the esterification of free fatty acids but also remove impurities, polypeptide, phospholipid, etc., by acid -treatment of oils and fats by the acid catalyst added.

HETO ★ D23 05093 D/04 ★SU -734-185
Synthesis of 2-methyl-cyclopenta-decanone for use in perfumery - from 15-methyl-13-keto bi:cyclo penta:decene, using specified reducers and oxidisers
HETEROORG CPDS AS USSR 19.09.77-SU-574434 (19.09.77-SU-524990)
E15 (18.05.80) C07c-49/27
19.09.77 as 524990 (4pp124)
Selectivity of the synthesis of 2-methylcyclopenta-decanone is improved when the process includes reducing 15-methyl-13-keto-bicyclo(10,3,0)pentadeca-1(12)ene (I) with NaBH4, LiAlH4 or NaAlH2 (OCH2CH2OCH3)2. The prod. is then epoxidised with perbenzoic, peracetic or perphthalic acid and oxidised with chromic acid to 15-methyl-1,12-epoxy-13-keto-bicyclo(10,3,0) pentadecane. The latter is reacted with tosyl hydrazide in methanol at 4-10 deg.C. The resulting hydrazone is boiled in acetone and the resulting 2-methylcyclopentadeca-4-yn-1-one hydrogenated over Pd/C to yield the prod. boiling at 123-124 deg.C/1 mm.Hg.

HETO D23 05093 D/04 =SU -734-186
Synthesis of 2-methyl-cyclopenta-decanone for use in perfumery - from 15-methyl-13-keto bi:cyclo penta:decene, using specified reducers and oxidisers
HETEROORG CPDS AS USSR 19.09.77-SU-574434 (19.09.77-SU-524990)
*E15 (18.05.80) *SU-734-185 C07c-49/27*
19.09.77 as 524990 Add to 574418. (4pp124)
2-methyl cyclopentadecanone (I) which finds use in perfumery can be produced more efficiently as follows. Cyclododecanone is condensed with vinyl acetylene in ether, in the presence of an alkali, at 0-5 deg.C, and the resulting 1-vinylethynyl cyclododecanol is cyclised at 100-120 deg. in a 10-20:1 mixt. of acetic and sulphuric acid.
This gives 15-methyl-13-ketobicyclo(10,3,0) pentadeca-1(12)-ene which is then reduced with NaBH4, LiAlH4 or NaAlH2(OCH2CH2OCH3)2 and epoxidised with perbenzoic, peracetic or perphthalic acid.
Subsequent oxidn. of the prod. with chromic acid to 15-methyl-1,12-epoxy-13-ketobicyclo(10,3,0) pentadecane and reacting it with tosyl hydrazide in methanol at 4-10 deg., gives a hydrazone and the latter is then boiled with acetone to yield 2-methylcyclopentadeca-4-yn-1-one. Finally the latter is hydrogenated over Pd/C to (I) boiling at 123-

124 deg./1 mm. Hg.
The method avoids formation of the 2-methyl and 3-methyl isomers which are practically impossible to separate. Bul.18/15.5.80

HETO D23 05093 D/04 = SU -734-187
Synthesis of 2-methyl-cyclopenta-decanone for use in perfumery - from 15-methyl-13-keto bi:cyclo penta:decene, using specified reducers and oxidisers
HETEROORG CPDS AS USSR 19.09.77-SU-574434 (19.09.77-SU-524990)
*E15 (18.05.80) *SU-734-185 C07c-49/54*
19.09.77 as 524990 (2pp314)
15-Methyl-13-ketobicyclo (10,3,0) pentadeca-1(12)-ene is useful in the perfumery industry and is prepd. in a simplified process by: condensing cyclo-dodecanone with vinylacetylene in the presence of an alkali in a polar solvent, and bicyclising the resulting 1-vinyl-ethynyl-cyclododecanol at 100-120 deg.C in the presence of a 10-20:1 mixt. of acetic and sulphuric acids.

AROM = ★ D23 05134 D/04 ★SU -734-252
Fermenting and storing rose blooms - in water contg. minor amt. of hydroquinone prior to hydro-distillation
AROMATIC OIL PLANT 05.01.78-SU-566064
(18.05.80) C11b-09/02
05.01.78 as 566064 (3pp314)
Rose blooms are fermented and stored prior to hydro-di use in the essential oils industry by preserving in water mg./l. of hydroquinone. The presence of the latter in content of terpenic alcohols in the rose oil, reduces its a and provides a better quality prod.
In a typical process, the rose blooms are stored in an hydroquinone at 40-50 deg.C in a ratio of 2:1. The hy concn.is 25-50 mg./l. Typical storage times are 2-48 18/15.5.80.

UGIN D23 77583 V/45 =
Fatty acids prepn. from crude metallic soaps - by dissolv acid and acidifying with aq. mineral acid
PROD CHIM UGINE KUHLMANN 26.09.73-FR-03446
*E17 (15.05.80) *BE-816-424 C07c-51/02*
25.09.74 as 063055 (3pp)
Process comprises (1) dissolving the soaps in molten great org. acid in wt. ratio 2-0.2:1, pref. 1-0.3 at 50-150 pref. 80-110 1 atmos. under an inert atmos. and (2) acidifying the mixt mineral acid contg. sufficient water to dissolve the salts fo soap is RCOOM (where R is 4-30C alkyl, which is also the radicals and M is Na, K, Ca, Ba or NH4). Process is co avoids use of large amts.of water and is used in prepn. of a alkali fusion oxidn. of oxygenated cpds. Bul.18/15.5.80.

See Also

D13 US 4243603 D21 US 4243590

D24: SOAP; SOAP DETERGENTS

UNIL D24 45298 U/32 = J8 0050-999
Toilet detergent bars - contng water sol lactates and opt glutamates for improved humectant effect
UNILEVER NV 28.01.72-GB-004180
*(22.12.80) *BE-794-378 C11d-03/20 C11d-09/26*
26.01.73 as 010957 (4pp)
Detergent bars contain 20-55 wt.% water-sol. lactate salt (I), opt. partially replaced by water-sol. glutamate salt (II), provided that there is at least 10 wt.% (I) and 80-45 wt.% detergents and other usual additives.
Compsns. used as toilet soaps/detergent bars, are res softening and wear, are easily moulded and improve the retention of the skin (J48084108)

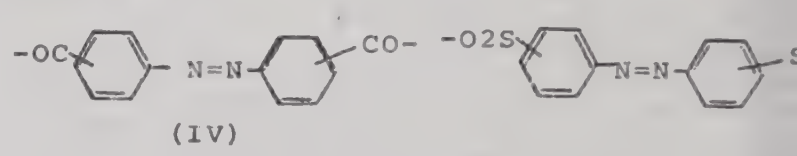
See Also

D21 US 4243814

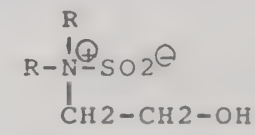
D25: OTHER DETERGENTS

CESK ★ D25 03960 D/04 ★DE 3023-141
Non skin-irritating antistatic textile finishing compsn. - contg. fatty acid 3-hydroxyalkyl-amino-2 hydroxypropyl ester compatible with anion-active surfactant
CESKOSLOVENSKA AKAD 20.06.79-CS-004255
E16 (15.01.81) C11d-03/30 D06m-13/40
20.06.80 as 023141 (14pp200)
Antistatic finishing compsn. for textiles contains 2-50 (4-25) wt.% fatty acid -3-hydroxyalkylamino-2-hydroxy-propyl ester having formula R-COO-CH2CH(OH)-CH2-N(R1R2) (I) (where R is 6-22C main chain alkyl or alkenyl; R1 is H, 2- or 3-hydroxyethyl, 1-hydroxy-2 or 2-hydroxy-2-, -3- or -4-butyl or 2-hydroxy-3-butyl; R2 is the same as R1 except H) together with softeners, stabilisers, brighteners, dyestuffs, perfumes and dermatological additives, anion-active, nonionic and cation-active tensides and other standard additives. (I) are used specifically for finishing textiles.
Compsns. are non toxic; do not irritate the skin; are active even in low concns.; adhere to fibres and retain their activity at low ambient humidity; do not react with anion-active tensides used in washing; reduce the surface-resistance of synthetic textiles, e.g. from 10 to the power 13- to 10 to the power 9 ohm on a polyester fabric, prevent electrostatic charge formation. Other effects are: easier washing out of dirt, textile softening and improved hand.

BADI D25 06360 S/03 = DS 1936-789
Sulphure dioxide tertamine addition products
BASF AG 19.07.69-DE-936789
*E19 F06 (15.01.81) *BE-753-622 + C07c-87/30 C07c-91/26*
19.07.69 as 936789 (3pp068)
New cpds. are addn. cpds. of sulphur dioxide and tert. amines of formula (I) (where each R is a methyl, ethyl or beta-hydroxy -ethyl gp.) e.g. triethanolamine-SO2 addn. cpd. The addn. cpd. may be prepd. by reacting 1 mole amine with 1-5 moles SO2 at -40 to +80 deg.C. in an inert solvent such as ethylene chloride.
The new cpds. are useful as textile auxiliaries, in shampoos, as emulsifiers, disinfectants and for making permanent pleats in wool.(DS)



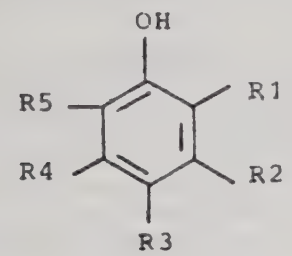
(IV)



UNIL D25 49431 B/27 = DS
Granular bleach activators - contg. binder comprising tri:phosphate and/or borax and another hydratable salt
UNILEVER NV 22.12.77-GB-053473
*E34 (15.01.81) *DE2855-777 C11d-03/39 C11d-07/60 D06l-03*
22.12.78 as 855777 (5pp068)
A granular bleach activator for use in or with washing bleaching agents has a particle size of 0.2-2.5 mm and com mixt. of (1) 55-90 wt.% bleach activator for per cpds. and (wt.% binding agent.
The bleach activator (1) has a titer in the per-acid formation at least 1.5 ml 0.1n sodiumthiosulphate and is pref. N,N tetraacetylethylene diamine. The binding agent (2) is a mix least one 1st hydratable inorganic salt which is sodium tripho and/or borax and a 2nd hydratable inorganic salt, othe potassium triphosphate, which has a water solubility of more g anhydrous salt per 100 ml. at 60 deg.C, a pH of 6-11 for a 10 and no transition point below 35 deg.C.
The activator pref. comprises 7.5-30 wt.% 1st hydratable sa 5-15 wt.% 2nd hydratable salt, e.g. disodium orthophosphat solubility of the binding agent ensures the activator is r available when required.(DS)

D25 50034 C/29 = DS 2900-368
eaning and maintenance compsn. - contains acrylic resin ent mixt. contg. chloro-hydrocarbon
)-KLINKER EBERSD 05.01.79-DE-900368
*04 (15.01.81) *DE2900-368 C04b-41/06 C11d-03/44*
as 900368 (3pp068)
ing and protecting agent for surfaces of brick or natural or c stone, etc. comprises 8-20 pts. wt. acrylic resin soluble in rbons complemented by up to 2 pts. wt. of a soft resin and/or ts. wt. plasticiser and/or up to 3 pts. wt. of a glycerine resin natural resin and 92-80 pts. wt. solvent, of which 25-50 pts. lorohydrocarbon. The solvent component may contain white olvent naphtha pine oil, terpenes etc. The soft resin may be yester and the plasticiser dioctyl phthalate.
gent cleans off stubborn stains and protects the surface from damage.(DS)

D25 71526 C/40 = EP --20-867
lation of alcohol(s) - using strontium (hydr)oxide catalyst with co:catalyst
OCO INC 02.07.79-US-054089
*(07.01.81) *US4223-164 C07c-41/03 + B01j-31/02*
as 101424 (28pp478) (E) EP---6105 US3761523 US3829505 350 US3972948 E(BE DE FR GB SE)
s (I) are ethoxylated at 90-260 deg.C by treatment with e oxide (EO) in the presence of a catalyst system consisting of ntium oxide, strontium hydroxide and/or hydrated strontium ide and (b) a phenol of formula (II):
, R3, R4 and R5 are each H or 1-16C alkyl)..
the above catalyst system the process affords high mole ethoxylated prods. (III) in a very narrow, highly desirable ution range. In addn., the process is rapid, has a greatly d induction period, and affords reduced amts. of by-prods. reacted (I). The prods. are useful as detergents, sanitizers, d in the pulp and paper, and fibre industries.



(II)

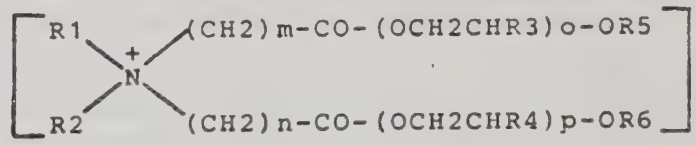
D25 90233 C/51 = EP --21-003
tant per:fluoroalkane sulphonamide salts - used e.g. as erisation emulsifiers, paint levelling agents, and additives for ent compsns. and photographic film
YER AG 25.05.79-DE-921142
*C03 E19 + P83 (07.01.81) *DE2921-142 B01f-17/26 + C07c-/74 C11d-01/28 D06m-13/30 G03c-01/34*
0 as 102682 (18pp367) (G) DS1275054 DE2013104 DS1140188 1341 DE2457754 DE2749330 GB1498697 US2732398 US3875227 DE FR GB IT LI)
e of perfluoroalkane sulphonamide salts, pref. of formula (I), actant is new Rf-SO2-N(R)(-) M(+) (I)
a 4-20C perfluorinated aliphatic gp.;
, 1-4C alkyl, 1-4C hydroxyalkyl or 3-6C cycloalkyl.
s an alkali(ne earth) metal or an onium gp. of formula 3R4R5) where Z is P or N and R2-R5 are H or 1-4C alkyl, yalkyl or alkoxyalkyl)..
s. (I) are at least as effective surfactants as more complex nces derived from them (cf. US2803656, 2803615, 2809990 and 0188). They can be used, e.g., as emulsifiers for erisation (esp. of F-contg. monomers); wetting agents for ers, drilling muds, fibres, etc.; mould release agents for es; levelling agents for paints; additives for agrochemical ns.; additives for detergent formulations; and additives for raphic film mfr.

★ D25 04153 D/04 ★EP --21-267
merated zeolite ion exchange compsn. - contg. hydrated alkali silicate, useful as free-flowing detergent builder
CORP 23.05.80-US-152897 (18.06.79-US-049259)
(07.01.81) B01j-20/18 C01b-33/28 C11d-11
0 as 103287 (18pp478) (E) DS1792743 DE2744753 EP---3752 488 DE2642518 US4096081 US3720756 E(BE DE FR GB IT NL)
merate compsn. (particle size 150-2000 micron) consists of (by t. of a hydrated soluble alkali metal silicate (I) and 1-8 pts. of a ed zeolite (II).

x((AlO2)x(SiO2)).zH2O (II)

y are integers, and mol. ratio x:y is 0.1-1.1;
z is an integer so that the H2O content is 18-30%).
(I) contains 1.4-4 mol. SiO2/mol. of M2O (M is Na and/or K) and 15-30% H2O..
The agglomerate is a free-flowing granular powder which shows relatively small differences between tamped and untamped bulk densities, and which is capable of absorbing a significant level of compatible liqs. (esp. nonionic surfactants). The compsn. disperses readily in water to provide a high and very fast ion exchange capability. The compsn. is esp. useful as a builder for dry-blended laundry detergents.

FARH ★ D25 04220 D/04 ★EP --21-431
Quat. alkylamino di:alkyl carboxylic acid di:ester prepn. - by reacting amine with omega-haloalkane carboxylate; used as textile softener rinse
HOECHST AG 03.07.79-DE-926772
A97 E16 (A25 E14) (07.01.81) C07c-99 C07c-101/18 C11d-01/46 C11d-03/26 D06m-13/46
26.06.80 as 103619 (15pp200) (G) NO-CITNS. E(AT BE CH DE FR GB IT LI NL)
The prepn. of quat. alkylamino-dialkyl-carboxylic acid diesters having formula (I) are claimed. In (I) R1 and R2 are 1-4C (hydroxy)alkyl or benzyl; R3 and R4 are H or Me; R5 and R6 are 8-24C alk(en)yl; m and n are 1 to 4; o and p are 0 to 10 and X is a halogen-, methosulphate-, ethosulphate- or alkylphosphate anion).
The prepn. comprises first (i) reacting an amine having formula R1R2NH (II) with a haloalkanecarboxylic acid ester having formula X-(CH2)m-CO-(O-CH2-CHR3)o-OR5 (III) (where X is halogen) and then (ii) with a haloalkanecarboxylic acid ester having formula X-(CH2)n-CO-(O-CH2-CHR4)p-OR6 (IV).
Alternatively, 1 mol. prim. amine having formula R1-NH2 is reacted with 2 mol. (III) or (IV) and then quaternised with a cpd. R2-Y (where Y is halogen) or (R2O)2SO2..
The diesters are used as laundry softener rinses, e.g. for natural or regenerated cellulose, wool, cellulose acetate, triacetate, polyamide, polyacrylonitrile, polyester or polypropylene textiles, partic. as an after-rinse for towelling and underwear.



(I)

UNIL D25 82159 A/46 = GB 1583-081
Detergent compsn. prepn. from alkali metal and calcium carbonate(s) - plus detergent, used for washing powders low in phosphorus
UNILEVER LTD 18.05.77-GB-020933
*(21.01.81) *BE-867-038 C11d-11*
15.05.78 as -----(pp937)
Particulate detergent compsn. comprises an alkali metal carbonate pref. Na, that is treated with a liq. or pasty detergent active cpd. and partially hydrated prior to mixing with finely divided CaCO3.
The Na2CO3 functions as a detergency builder removing Ca from hard water as a ppte of CaCO3 that deposits itself on the finely divided CaCO3 already present instead of on the fabric or washing machine.

UNIL D25 82160 A/46 = GB 1583-082
Detergent powder sachet for washing fabrics - has water-sensitive seal to release contents in washing process
UNILEVER LTD 18.05.77-GB-020934
*Q32 + Q34 (21.01.81) *BE-867-039 C11d-17*
15.05.78 as ------ 5pp937)
Particulate detergent compsn. is contained in a closed water insoluble bag. This bag is formed from a rectangular sheet of material made of paper or nonwoven fabric of cellulose fibres that is folded and sealed on three edges with a water soluble adhesive. The contents of the bag are discharged when the bag comes in contact with water.
The use of bags as dispensers enables more alkaline materials to be used than can be used in powders which contact the skin.

JONS- ★ D25 04634 D/04 ★J5 5147-598
Mfg. foaming powdered detergent compsn. - from inorganic carbonate, water-soluble solid acid, e.g. sulphamic acid, aromatic sulphonic acid and surfactant
JONSON KK 09.05.79-JP-055712
E19 (E37) (17.11.80) C11d-03/10
09.05.79 as 055712 (3pp117)
Soluble and foaming type powder detergent compsn., used in kitchen, bathroom, toilet, etc. is obtd. by mixing more than 50wt.% inorganic carbonate, e.g. sodium bicarbonate, sodium carbonate, potassium bicarbonate, potassium carbonate, calcium bicarbonate, calcium carbonate, etc.; a water-soluble solid acid, e.g. sulphamic acid, oxalic acid, aromatic sulphonic acid, etc., in an amt. 0.5 to 5.0 times (molar equivalent) as much as the inorganic carbonate (or

bicarbonate), and a surfactant, e.g. an alkanolamide of a fatty acid such as the ethanolamide of coconut oil fatty acid, etc. In this case, the amt. of inorganic carbonate (or bicarbonate) in the whole detergent compsn. is 10 to 50 wt.%.

The compsn. has high foamability and a high detergency, as well as long lasting detergency.

SUNP- ★ D25 04635 D/04 ★J5 5147-600

Detergent compsn. esp. for cleaning baths - contains hydroxy-carboxylic acid chelating agent, surfactant, abrasive, solvent and thickener

SUN POLE KK 08.05.79-JP-055892

A97 E17 (17.11.80) C11d-03/14

08.05.79 as 055892 (4pp117)

Detergent is obtd. by mixing a hydroxycarboxylic acid (I) having chelating activity, such as malic acid, citric acid, etc. and a nonionic, anionic, cationic or amphoteric surfactant, with an insol. inorganic abrasive having a high stability under acid conditions, e.g. quartz powder of grain size 150-300 mesh, a water-soluble solvent, e.g., ethyleneglyclol monoalkylether (II), etc., and a thickening agent, (III) e.g. high mol. wt. polyoxyethylenealkylether.

For example, the pref. proportions of the detergent are as follows: 1-3 wt.% (I), 2-4 wt.% polyoxyethylene alkyl ether as surfactant, 2-4 wt.% (II), 30-60 wt.% quartz powder), 0.7-1.5 wt.% (III), a trace of a perfume, and water. Pref. pH is 3-4, and thixotropic index is 6.0.

The detergent is partic. effective against soil and dirt adhered to a domestic bathtub.

NIOF ★ D25 04891 D/04 ★J5 5149-243

Polyoxyalkylene fatty acid amide sulphuric acid ester salt prepn. - in presence of alkanolamine having prim. or sec. amino Gp.

NIPPON OILS & FATS KK 09.05.79-JP-056447

A25 E16 (20.11.80) C07c-139 C07c-141/02 C11d-01/88

09.05.79 as 056447 (4pp75)

In the prepn. of sulphuric acid ester salt of an N-polyoxyalkylene fatty acid amide of formula:-

R1-CO-NR2(CH2CH2O)m(CH2CHMeO)nH

(where R1 is 7-21C alkyl or alkenyl; R2 is H or methyl and m and n are at least O such that m + n is 2-20) an alkanolamine having a prim. or sec. amino gp. is added to the reaction system in an amt. of 0-7 mol.% relative to the N-polyoxyalkylene fatty acid amide. The mixt. is heated at 40-100 deg. C for 1-3 hrs., then sulphation is conducted at 30-80 deg. C, followed by neutralisation.

The sulphuric ester salt of N-polyoxyalkylene fatty acid amide is coloured only slightly, has high sulphation degree and does not produce cloud (sic). Pref. the alkanolamine is di-ethanolamine, N-methylethanolamine, monoisopropanolamine, diisopropanolamine or diglycolamine.

ASHL D25 35462 V/19 = J8 0050-703

Liquid surfactant comp - freeze-thaw stable

ASHLAND OIL INC 23.05.72-US-256082

*(19.12.80) *J49026-192 + B01f-17/46 C09k-03*

19.04.73 as 043694 (3pp)

A liq. surface active compsn. exhibiting excellent stability to freezing and thawing comprises 10-90 wt. parts of a 12-22 C aliphatic prim. monoamine or an N-substd. diamine of formula RNHCH2CH2CH2NH2 (where R is a 12-22 C aliphatic hydrocarbon residue) and 90-10 wt. parts of an adduct thereof with 1-15 mols. of a lower alkylene oxide. (J49026192)

ALBR D25 18338 U/13 = J8 0050-997

Aqueous detergent - contg an alkoxylated alcohol sulphate and an acid to control viscosity

ALBRIGHT & WILSON LTD 26.05.72-GB-025051 (20.10.71-GB-048699)

*E17 (D21) (22.12.80) *BE-790-362 C11d-01/29 C11d-03/20 + A61k-07/06*

20.10.72 as 105178 (4pp)

Concentrate comprises at least 30 wt.% of an alkoxylated alcohol sulphate and 1-10 wt.% of a cpd. A(COOH)n (where A is H or a 1-8C (un)saturated aliphatic gp. opt. contg. OH gps. or a single bond if n is Z; n is 1-4).

Compsn. may be used in cosmetic products such as shampoos and bubble baths, and cleaning liquids. Viscosity is low. (J48048699)

KNAP D25 58439 U/40 = J8 0051-000

Detergent builders - prepd by hydrolysis of halogen-contg copolymers

KNAPSACK AG 16.03.72-DE-212623

*A97 (22.12.80) *DE2212-623 C11d-03/37 + C08f-220/04*

15.03.73 as 030497 (9pp)

Builders for washing and cleansing agents, consisting of COOH gp. and OH gp-contg. oligomers and/or polymers contg. predominantly C-C bonds in main chain and the OH gps. of which may be partly lactonised, are prepd. by the hydrolysis of halogen-contg. copolymers contg. 5-60 wt.% halogen, and built up, in main units, arranged in opt. sequence, and having the formula (CRX-)m (I), (-CRY-CRZ)1-m (II) and (-CH2-CR(CH2R)-)1-m (and Z are each H and/or halogen, provided 1 is halogen carboxyhalide radical, COOH, ester, nitrile or anhydride g 1.

Hydrolysis of the halogen-contg. copolymers, having viscosities of 0.1-5 measured in a 4 wt.% aq. soln. at 25 deg place with heating using at least stoichiometric amounts of convert halogen to OH and carboxyhalide, ester, nitrile or a to COOH. (J49004704)

URAL= ★ D25 05136 D/04 ★SU

Cleaning compsn. for solid surfaces - contains surfactant, poly-phosphate, calcined soda, disinfectant and kiesel alumina

URALS CHEM IND RES 01.11.77-SU-537718

(18.05.80) C11d-01/66 C11d-03/48

01.11.77 as 537718 (4pp314)

Compsn. known as Oksiblesk for cleaning and disinfectin enamel, ceramic, etc., surfaces consists of (in wt. %): surfac Na polyphosphate 3-7, calcined soda 2-4, disinfectant 30 kieselguhr or alumina abrasive to 100. The compsn. has en disinfecting properties.

In a prefd. compsn., the disinfectant is Na percarbo perborate and the surfactant is a soap powder or a cpd. b polyoxyethylated 10-16C synthetic fatty acid monoethanol and urea.

DOWO D25 14072 B/07 = US R

Detergent for synthetic fabrics, esp. polyester(s) - con polyethylene glycol alkyl mono:ether, sodium sesqui:carb sodium silicate hydroxy:butyl methylcellulose and carbonate

DOW CORNING CORP (DOWC) 03.02.78-US-878122 (23.04 679536)

*A97 E34 (A11 A25 E17) (06.01.81) *US4138-352 C08b-11/19 03/37 D06m-15/04*

20.08.79 as 068293 (Reissue of 4138352)(7pp974)

Detergent compsns. consist of (a)20 wt% 8-22C alkyl monoeth 5-20 EO unit polyethylene glycol; (b) 60% Na sesquicarbonate; Na silicate of SiO2:Na20 ratio 2-3:1; (d) hydroxybutylmethylcellulose and (e) 10% Na2SO4.

The cellulose (d) has a DS of 1.5-2.3, an MS of 0.01-0.6 viscosity of 20-200 cps in 2% aq soln at 20 degC.

Compsns. are esp used for washing polyester fabrics and i antisoil properties and inhibit redeposition of soil.

ECON ★ D25 05527 D/04 ★US 4

Stabilised liq. proteolytic enzyme compsns. - contg. antiox hydrophilic poly:ol, and weak base buffer as stabiliser

ECONOMICS LAB INC 11.05.79-US-038020

E19 (D16) (06.01.81) C11d-07/54

11.05.79 as 038020 (16pp478)

Two-part cleaning compsn. consists of (by wt.): (1) a prot enzyme (I)-contg. compsn. consisting of (a) 20-90% H2O, (b) 0.((I), (c) 1-70% of an anionic and/or nonionic surfactant (II), and H2O-soluble stabilising system for (I) contg. (i) 0.1-5% antioxidant (III) (single electrode potential at 25 deg.C at least to ascorbic acid but less than Na hydrosulphite), (ii) 1-25% organic, H2O-soluble, hydrophilic polyol (IV) (2-6 OH gps.; m less than 500), and (iii) a weak base to buffer pH at 5.2-9 and p pH alteration on spontaneous oxidn. of (III); and sepa packaged (2) a relatively more alkaline compsn. for blending w which consists of a chelating or sequestering agent (V sequestering alkaline earth metal cations.

The stabilising system effectively prevents the deterioration of (I). The compsns. are partic. useful in rem proteinaceous soils from fabrics and hard surfaces, and in cle in-place techniques for cleaning appts.

UNIL D25 56302 B/31 = US 42

Spray dried detergent powder compsn. prodn. - by mixing aq of sodium silicate to detergent contg. sodium aluminosilicate to atomising

LEVER BROTHERS CO 01.02.78-GB-004052

*(06.01.81) *BE-873-772 C11d-11/02 + C11d-07/02*

26.01.79 as 007062 (5pp964)

Powdered detergent compsn. contg. sodium aluminosi detergency builder is prepd. by forming a detergent slurry sodium alumino-silicate detergency builder in a slurry m vessel and spray drying the slurry through a spray nozzle.

The improvement is that an aq. soln. or suspension of Na silic an amt. sufficient to provide 0.1-50 wt.% in the detergent comp mixed with the detergent slurry at a point between the slurry m vessel and the spray nozzle. The contact time between the dete slurry and the soln. or suspension of Na silicate is less than 5 mi

Harmful interaction between the aluminosilicate and silic

while retaining good powder properties.

D25 05528 D/04 ★US 4243-545
t compsns. with silane-zeolite silicate builder - where zeolite treated with functionally hydrophilic silane does not rate during incorporation into detergent
ORP 10.12.79-US-102288 (14.10.77-US-842425)
(06.01.81) C02f-01/42 C11d-03/08 C11d-11/02
s 102288 Div.ex 4216125 (6pp367)
nt builder compsns. comprise (a) 5-60 pts.wt. of a silane-zeolite contg. 0.05-3.35wt.% of a hydrophilic silane, the being crystalline Na aluminosilicate contg. 15-35% water. 3-25 pts.wt. of a water-soluble alkali metal silicate with a equiv. to 1.0-4.0 moles SiO2 per mole Na2O. Component (a) agglomerate during incorporation into detergents, it can be d as described in US4216125.

★ D25 05529 D/04 ★US 4243-546
ed aq. protease or alpha-amylase enzyme compsns. - contg. nolamine and an organic acid as stabilisers
CKETT CO 23.03.79-US-023363
E19 (D16) (06.01.81) C11d-03/86 C11d-07/42
as 023363 (6pp478)
ing aq. enzyme compsn. consists of (by wt.):(a) 1-90% H2O; (b) opt. unsatd. 1-18C mono- or di-acid (I); (c) 0.1-25% of an amine (II); (d) 0.006-5% of an enzyme (III); and 1-55% of a ant (IV). (III) is a protease or an alpha-amylase. (II) is mono-, ri-ethanolamine. (IV) is nonionic and/or anionic surfactant.
g relatively small amts. of the stabilisers effectively es the enzyme (III) for long periods. The compsns. are e in the removal of proteinaceous and starchy stains.

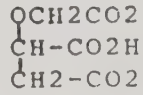
D25 14454 B/08 = US 4243-549
dilutable aq. surfactant compsn. - contains mixt. of teric and/or Zwitterionic surfactants and anionic surfactants
BRIGHT & WILSON LTD 26.07.77-GB-031350 (26.07.77-GB-50)
*34 (06.01.81) *DE2832-814 + B01f-17/16*
8 as 927832 (6pp974)
ble aq. surfactant compsns. are novel and consist of water and ve mixt. dilutable to a fluid active concn. of 5-30 wt.%. The consists of at least 10 wt.% each of amphoteric and anionic tant(s). The total wt. of surfactants is such that the compsn. is minantly) in the G phase.
.. compsns. also contain at least one nonionic surfactant. ns. have much higher surfactant content than prior art ble liq. compsns.

D25 89604 B/50 = US 4243-559
cleaner for oily kitchen soil - contains alkanolamine, cyalkylene alkyl ether and surfactant
O SOAP KK 05.06.78-JP-067530
*7 E19 (06.01.81) *DE2918-255 C11d-03/43*
9 as 041800 (4pp965)
detergent compsn. comprises (I) 0.5-30 wt.% of 1 or more olamines of formula(CnH2nOH)mNH(3-m); (II) 0.5-30 wt. of 1 or polyoxyalkylene mono- or di-lower alkyl ethers of formula 2H4O)x(C3H6O)yR'; and 0.1-20 wt.% of at least 1 water soluble, etic organic surfactant. The balance is water.
1-3, m is 1-3, the mean value of x + y is 3-10 (3.5-6) and x is in the 0-0.25 y inclusive, R and R' are H or (m)ethyl, but both R and not H.
compsn. is for kitchen use. It can remove sticky and resinous nd stains, that compsns. of surfactants and polyphosphates behind. The compsn. is free of objectionable smells.

MONA- D25 57234 C/33 = US 4243-602
Phosphorus-contg. surfactants mfr. - by reacting amine with phosphate or phosphite ester
MONA INDS 30.11.78-US-965457
*E11 (06.01.81) *EP--13-713 C07f-09/02 + A23j-07 C11c-03*
30.11.78 as 965457 (7pp936)
Quat. cpds. of formula (I) are new.
(R(+)-Y-O-P(:O)(A)-H)z(X(-)) (I).
In (I), R is a gp.
(R1-C(:O)-N(R2)-(CH2)n-N(R3)(R4))(+).
R1 is 5-22C alk(en)yl, alkoxy or hydroxyalkyl, or (alk)aryl with up to 20C atoms; R2 is H or (hydroxy)alkyl or alkenyl with up to 6 (pref. 2-5)C atoms or polyoxyalkylene with up to 10C atoms; R3 and R4 are each (hydroxy)alkyl or carboxyalkyl with up to 6C alkyls, or up to 10C polyoxyalkylene;
n is integer 2-12; Y is alkylene opt. interrupted by up to 3 O atoms of up to 12C atoms, opt. contg. a substit.; A is OM or OYR(+); M is up to 6C (hydroxy)alkyl, up to 10C polybydroxyalkyl, glyaryl, up to 6C cycloalkyl or up to 10C aryl(alkyl); X(-) is an anion; and Z is 1 or 2. Proviso is tbat when A is OM, Z is 1 and when A is OYR, z is 2.
(I) are good surfactants, and exhibit good foam vol. and superior foam stability.

HERC D25 01233 D/02 = US 4243-802
Cellulose ether with long-chain hydrocarbon substit. - insoluble in water, soluble in surfactants, for detergent compsns.
HERCULES INC 06.06.79-US-045819
*A11 (A97) (06.01.81) *NL8003-241 C08b-11/19*
06.06.79 as 045819 (5pp963)
Cellulose ether is claimed having a sufficient degree of nonionic substitution selected from methyl, hydroxyethyl and hydroxypropyl to cause it to be normally soluble in water and which is further substd. with a long chain 10-24C alkyl in an amt. between that which renders the ether water-insoluble and ca. 8 wt.% based on total wt. of modified cpd. Pref. the normally soluble cellulose ether prior to modification has a D.P. of 75-1800.
Cpds. are soluble in surfactant systems and are useful as viscosity increases, and as emulsifiers in aq. systems.

UNIL ★ D25 05647 D/04 ★US 4243-820
Prepn. of carboxy methyl:oxy-succinic acid - by acidification of calcium salt, and isolation with an alcohol solvent, used as food additive and detergent builder
LEVER BROTHERS CO 15.05.78-US-905628
E17 (06.01.81) C07c-59/23
15.05.78 as 905628 (4pp478)
Ca carboxymethoxysuccinate (Ca-(I)) is converted to the corresp. acid (I) as follows: (a) Ca-(I) is treated with Na2CO3 in aq. medium; (b) pptd. CaCO3 is removed to leave an aq. soln. of tri-Na-(I); (c) the soln. of tri-Na-(I) is acidified with H2SO4; (d) produced (I) is isolated with a solvent. Solvent is n-BuOH, s-BuOH, i-BuOH, t-BuOH, 1-, 2-, or 3-pentanol, 2- methyl-2- (or 3- or 4-) butanol, cyclohexanol, 2,2-dimethyl-1- propanol, or mixts.
Isolation of (I) with one of the above alcoholic solvents affords (I) of much higher purity than by conventional methods (in partic., paramagnetic Fe impurities are removed). In addn., emulsions are not formed, and formed by-prods. are useful commercially.



(I)

See Also

D22 US 4243670

29.03.79 ABBOTT LABORATORIES B03 D22 E13 =FR 2452-494
i-fortimicin A and derivs. - 64094C/36
29.03.79 ABBOTT LABORATORIES B03 C02 D22 E13 =FR 2452-495
i-fortimicin A and B derivs. - 73888C/42
29.03.79 ABBOTT LABORATORIES B03 D16 =FR 2452-497
imicin AN - 65926C/37
24.07.71 AGENCY OF IND SCI TECH D17 =J8 0051-557
uctose-D-glucose mixt - 14151V/08
24.05.72 AGENCY OF IND SCI TECH D17 =J8 0051-560
ation of fructose from invert sugar - 57515V/32
16.04.74 AGENCY OF IND SCI TECH D17 E13 =J8 0050-680
aration of D-glucose and frutose from cane sugar - 73113W/44
01.02.75 AGENCY OF IND SCI TECH D16 (D17) =J8 0051-551
ylase and glucosidase enzymes - 71194X/38
10.05.79 AGENCY OF IND SCI TECH A91 D15 J01 M11 *J5 5148-

covering gold from waste plating rinsing water - 04769D/04
- 05.08.76 AGROFERM AG B04 D16 =CH -620-706
mentative prodn. of D-(3)-hydroxybutyric acid - 10273A/06
27.02.69 AJINOMOTO KK B05 D16 E16 =J8 0051-547
ysine prepn by fermentation - 10617S/06
02.05.79 AJINOMOTO KK B05 D16 E16 *J5 5148-092
gh yield L-Arginine prodn. - 04659D/04
02.05.79 AJINOMOTO KK B05 D16 E16 *J5 5148-093
gh yield L-arginine prodn. - 04660D/04
= 09.01.78 AS KAZA MICROBIOL D15 (D16) *SU -734-274
crobiological purificn. of waste water - 05147D/04
= 19.12.78 AS KAZA MICROBIOL B04 D16 *SU -734-271
odn. of cormogrisin antibiotic - 05144D/04
24.05.79 ALBERTO CULVER CO D21 E19 *US 4243-659
. shampoo compsns. for increasing hair body - 05581D/04
20.10.71 ALBRIGHT & WILSON LTD D25 E17 (D21) =J8 0050-997
ueous detergent - 18338U/13
07.02.72 ALBRIGHT & WILSON LTD D21 E14 (E12) =J8 0050-998
s surfactant concentrate - 46837U/33
26.07.77 ALBRIGHT & WILSON LTD D25 =US 4243-549
nc. dilutable aq. surfactant compsn. - 14454B/08
04.05.79 BUSH BOAKE ALLEN D23 E13 =J5 5149-207
hydro:pyran and dioxan cpds. for perfumery compsns. - 83069C/47
05.05.77 AKZONA INC A96 D22 F01 (A14) #CA 1091-375
ghly absorbent, cardable cellulosic fibres - 06201A/03
15.06.79 AKZO GMBH D16 =EP --21-247
cohol removal from fermented drinks - 75366C/43
= 01.03.78 AS LATV MICROBIOL A97 C03 D13 =DS 2808-803
ed-concentrate powder polymer coating - 68219B/38
A- 17.10.77 ALLIED WATER CORP D15 =US 4243-523
ater purification and desalination appts. - 20214C/11
S 22.06.79 AMERICAN BRANDS INC D18 *WP 8100-001
sting all tobacco sheet - 05669D/04
Y 23.05.77 AMERICAN CYANAMID CO A96 D22 (A23) =US 4243-

polymer having glycolide and tri:methylene carbonate units - 088C/21
E- 10.03.78 AMER DENTAL ASSOC A14 D21 E14 (A23 A60 A96 D22) 4243-763
isatd. polyester or acrylate or methacrylate compsn. - 05623D/04
21.07.78 ANIC SPA A60 D23 E14 (D13) =DS 2929-082
enolic ether prodn. from phenol cpd. and carboxylic alkyl ester - 473C/06
- 06.09.75 INTR ANTIBIOTICE B02 D16 *RO --65-096
amycin-producing nocardia ICCF DZ2 505 mutant - D/04
- 13.07.76 INTR ANTIBIOTICE B03 D16 *RO --67-388
eptomycin prepn. by bio-synthesis - D/04
= 13.02.78 ANTIBIOTICS FERMENT B04 D16 *SU -734-273
nicillium solitum Westling strain - 05146D/04
= 17.02.78 ANTIBIOTICS FERMENT D16 *SU -734-260
ostridium perfringens phospholipase C inhibitor - 05138D/04
R 27.03.79 AGENCE NAT DE VALOR B03 D16 S03 (S05) =FR 2452-704
saying amino:glycoside antibiotics by enzymatic reaction - 77538C/44
R 30.03.79 AGENCE NAT VALORISATION D15 J01 *FR 2452-302
stn. plant using solar powered evaporator - 04238D/04
L- 08.06.79 APOLLO HEAT LTD A35 D15 J04 M24 (T06) *GB 2051-601
uidised bed for heat treating articles - 04306D/04
M= 05.01.78 AROMATIC OIL PLANT D23 *SU -734-252
rmenting and storing rose blooms - 05134D/04
E 02.05.79 ASAHI DENKA KOGYO B04 D13 *J5 5148-055
utrient emulsified drink having cholesterol lowering activity - 647D/04
E 02.05.79 ASAHI DENKA KOGYO B04 D13 *J5 5148-056
utritional emulsified drink prepn. - 04648D/04
H 25.12.72 ASAHI CHEMICAL IND KK A97 D18 =J8 0051-543
lkali cellulose tobacco substitutes - 43187W/26
H 23.01.74 ASAHI CHEMICAL IND KK A31 D14 J01 =J5 0103-482
smotic liq. separator - 05040D/04
H 23.01.74 ASAHI CHEMICAL IND KK A31 D14 J01 *J8 0051-604
smotic liq. separator - 05040D/04
H 29.03.76 ASAHI CHEMICAL IND KK D15 =J8 0050-714
rifying polluted water using activated charcoal - 81980Y/46

*ASAH 08.05.79 ASAHI CHEMICAL IND KK A88 D15 J01 (A26) *J5 5147-108
Increasing the pore size of polysulphone semipermeable membrane - 04457D/04
*ASBI= 16.01.78 AS USSR BIOL PHYS B04 D16 *SU -734-262
Microbiological prodn. of RNA-polymerase - 05140D/04
ASCH/ 11.11.76 ASCHINGER A D11 =CH -620-813
Low-carbohydrate diet bread prepn. - 36868A/21
ASCO- 03.07.72 VEB KOMB ASCOBLOC D12 =RO --68-311
Tubular package mfr - 04933V/03
ASHL 23.05.72 ASHLAND OIL INC D25 =J8 0050-703
Liquid surfactant comp - 35462V/19
*ASMI= 11.04.77 AS USSR MICROORGANI A97 B04 D16 *SU -734-261
Microbiological prodn. of ribonuclease enzymes - 05139D/04
*ASPH= 08.02.77 AS PHYS CHEM INST D22 *SU -735-280
Air sterilising equipment for removing bacterial aerosol particles - 05199D/04
*AUTE= 12.07.76 AS UKR TECH THER PH D15 J02 *SU -735-290
Pulse aerator for liquids - 05207D/04

BADI 19.07.69 BASF AG D25 E19 F06 =DS 1936-789
Sulphure dioxide tertamine addition products - 06360S/03
BADI 07.03.75 BASF AG D23 E17 =CH -620-892
Substd. heptenol and heptadienyl and heptenyl esters for perfumery - 72399X/39
BADI 15.06.79 BASF AG B03 C01 D22 E11 =EP --21-041
6-Fluoro-2-pyridyl-thio- and di:thio-phosphate derivs. - 00151D/01
BADI 21.06.79 BASF AG D23 E13 =DE 2925-043
2,4-Di:substd. pyran derivs. useful as perfumes - 04077D/04
BADI 21.06.79 BASF AG B04 D16 S03 =EP --21-009
Co-lyophilised compsn. contg. dextran. - 02101D/03
*BADI 21.06.79 BASF AG D23 E13 *EP --21-013
2,4-Di:substd. pyran derivs. useful as perfumes - 04077D/04
*BADI 30.06.79 BASF AG D23 E17 *EP --21-074
Citral perfume prepn. by 3-methyl-butenal di:prenyl acetal pyrolysis - 04092D/04
BALA/ 02.03.79 SUAY BALAGUER E D11 =DE 3007-800
Bakery oven with continuous bucket conveyor carrying dough pieces - 88696C/50
*BARB/ 05.10.78 BARBER L M A96 D22 *US 4243-026
Adjustable finger splint - 05423D/04
*BAST= 17.10.77 BAST FIBRE PRIMARY D16 F01 *SU -734-278
Trichosporon cutaneum to yeast strain - 05150D/04
BEAF 18.06.79 BEATRICE FOODS CO D12 =EP --20-849
Puffable fried snack food prodn. - 01985D/02
BEHW 29.06.79 BEHRINGWERKE AG B04 D16 J01 S03 (S05) =EP --21-407
Reagent for detecting cpds. with peroxidase activity - 02171D/03
BERG 26.05.78 BERGWERKSVERBAND GMBH C03 D21 E13 (D13 D23) =US 4243-590
Indole prodn. from 1,2,3,4-tetra:hydro-quinoline - 87855B/49
BERT- 18.06.76 BERTRAMS H AG D15 =CA 1091-185
Removal of hydrocarbons etc. from industrial waste water - 70800Y/40
BETT- 17.07.78 BETTCHER IND INC D12 =BR 7904-105
Hand held meat knife with rotating annular blade - 01506C/01
BIOM- 05.07.77 BIOMECHANICS LTD D15 =CA 1091-369
Anaerobic digestion tank - 02374B/02
BIOT- 07.05.76 BIOTHERM B05 D21 E19 =CH -620-587
Cosmetic compsn. for reducing cellulite - 79397Y/45
*BIOT= 27.12.77 BIOTECH RES INST D13 (D16) *SU -734-272
Bacillus polymyxa 205-57 strain - 05145D/04
*BLAT/ 15.04.77 BLATTER M D15 *CH -620-661
Waste water conversion to drinking water - 03776D/04
BLEN 22.06.79 BLENDAX WERKE SCHNEIDER D21 =EP --20-847
Inlay soap cakes mfr. - 02117D/03
BOEF 14.02.73 SUDDEUTSCHE ZUCKER B03 D17 =DS 2307-299
Isomaltite - 54151U/37
*BOEF 20.06.79 BOEHRINGER MANNHEIM GMBH B04 D16 *EP --21-311
Cholesterol oxidase prodn. by fermentation - 04169D/04
BOEF 22.06.79 SUDDEUTSCHE ZUCKER D17 =EP --21-364
Improved two-step carbonation in sugar mfr. - 02124D/03
*BOEF 25.06.79 BOEHRINGER MANNHEIM GMBH B04 D13 J04 S03 (D16 S05) *EP --21-310
Fructose determination in the presence of other sugars - 04168D/04
BOHN/ 28.01.78 BOHNKE B D15 =DS 2803-759
Installation for treating water by activated sludge process - 39027B/21
BOLI 23.03.79 BOLIDEN AB D15 F09 =J5 5147-109
Solid, non-dusting flocculating agent - 77574C/44
*BORM/ 30.10.79 BORMET H D15 *DS 2943-742
Run/off duct cleaning plant - 04026D/04
BRAS/ 00.00.78 BRASWELL J W D15 #DE 2926-746
Water softener with regeneration controlled by plunger valve - 05074C/03
BRAU- 28.03.79 BRAUN K O KG D22 =FR 2452-290
Self-adhesive bandage not adhering to skin, hair, clothes etc. - 56933C/33
*BRIC 04.05.77 BICC LTD D15 E37 *GB 1583-104
Improving quality of impure water - 04279D/04

BRTA 19.11.76 BRIT AMER TOBACCO LTD D18 =CH -620-578
Cigarette filter contg. narrower intermediate section - 23387A/13
BRTO 19.03.79 BOC LTD D15 J01 #US 4243-065
Liquid degassing appts. e.g. for sewage - 72249B/40
*BRTO 11.05.79 BOC LTD D15 *GB 2051-769
Continuous aerobic sewage digestion at elevated temp. - 04332D/04
*BUDA/ 07.05.76 BUDANITSKII I M D12 *SU -735-230
Oven for processing meat by/products - 05183D/04
BUHL 23.09.75 BUHLER GEBR AG D17 =CH -620-708
Starch and gluten prodn. from wheat, rye or barley - 22244Y/13
*BUSL/ 29.03.79 BUS L E D21 E19 *FR 2452-283
Capillary compsn. for the scalp - 04236D/04

CALI 14.02.77 CHEVRON RESEARCH CO A97 D11 H07 J07 (E17) =J5 5149-394
Lubricants for refrigerators, heat pumps and heat engines - 60814A/34
CANA 15.08.77 NAT RES COUNCIL CAN A88 D15 J01 (A11) =CA 1090-956
Cellulosic ester ultrafiltration membrane prepn. - 27707B/14
CASS 02.07.77 CASSELLA AG D18 E19 F06 =EP G000-201
Brightening and waterproofing cellulose textiles and leather - 02324B/02
*CESK 20.06.79 CESKOSLOVENSKA AKAD D25 E16 *DE 3023-141
Non skin-irritating antistatic textile finishing compsn. - 03960D/04
*CHCC 10.05.79 CHISSO CORP D22 *J5 5148-560
Deodorant with high active at normal temp. - 04752D/04
CHIN 02.06.75 CHINOIN GYOGYSZER C03 D13 (D16) =US 4243-685
Cultivating yeast for animal consumption - 04320Y/03
CHIN 25.03.77 CHINOIN GYOGYSZER D16 (D13) =GB 1583-304
Plant waste conversion to protein by hydrolytic process - 73096A/41
CIBA 10.10.75 CIBA GEIGY AG A60 D25 E23 F06 =CH -617-809
(1,4)-Bis-azolyl-naphthalene optical brighteners - 27585Y/16
*CIBA 28.06.79 CIBA GEIGY AG A91 D15 F06 J01 (A21) *DE 3023-788
Cationic adsorbent for removing acid dyes etc. from waste water - 03983D/04
COLG 19.08.76 COLGATE PALMOLIVE CO D22 =GB 1583-098
Tape fastener for disposable diaper - 68422Y/38
COLG 18.05.79 COLGATE PALMOLIVE CO B05 D21 E19 =DK 8002-134
Oral hygiene composition contg. peroxy:di:phosphate - 69592C/40
COLG 18.05.79 COLGATE PALMOLIVE CO B05 D21 E19 =SE 8003-631
Oral hygiene composition contg. peroxy:di:phosphate - 69592C/40
COLG 28.05.79 COLGATE PALMOLIVE CO A96 B05 D21 (A14 B04) #NO 7901-744
Magnesium poly:carboxylate complex anti:tartar compsns. - 79129B/44
*COME- 26.06.79 COMERCIO PLANTAS MEDICIN D22 W01 *BR 7904-026
Deodorant and anti-bactericide for telephone sets - D/04
CONO 02.07.79 CONOCO INC D25 E17 =EP --20-867
Ethoxylation of alcohol(s) - 71526C/40
*CONT- 10.12.75 INST CONTROL STATAL B04 D16 *RO --68-064
Determining therapeutic compsn. compatibility with nasal mucous cilia - D/04
*COOP- 26.03.79 COOP TRAITE PROD PE D13 *FR 2452-254
Protein concentrates prepd. from defatted protein contg. particles - 04231D/04
CORP 25.11.74 CPC INTERNATIONAL INC D17 J04 =CH -620-839
Fluidisation of difficult powders esp starch for dextrin - 44030X/24
CORP 02.04.76 CPC INTERNATIONAL INC D16 (D17) =CA 1091-173
Immobilisation of glucose isomerase - 70736Y/40
CORP 03.12.76 MAIZENA GMBH B05 D13 E19 =DS 2654-820
Aminoacid mixt. for aminoacid metabolism disorders - 42385A/24
CORP 16.06.79 CPC INTERNATIONAL INC D11 =EP --21-313
Storage-resistant ready-to-use paste for pasta - 32835C/19
CRDC 14.05.79 CORDIS DOW CORP A88 D15 J01 =DK 8001-913
Hollow fibre element for ultrafiltration etc. - 84773C/48
CSFC 13.08.76 THOMSON-CSF A97 D14 J04 S03 =CH -620-768
Temporary thaw detector for deep frozen prod. - 14428A/08

DAIE 18.04.72 DAINICHI NIPPON CABLES D15 =J8 0050-718
Ferrocyanide or ferricyanide waste water treatment - 47776V/26
DAIE 28.03.79 DAINICHI NIPPON CABLES D15 E32 M25 =FR 2452-524
Gold cyanide, and opt. silver cyanide, recovery from liquid - 73853C/42
DAII 28.04.76 DAIICHI KOGYO SEIYA C03 D13 E17 =J8 0050-667
Anticaking agent for powdery foods etc. - 89056Y/50
DAIN 24.10.72 DAINIPPON PHARM KK B04 D16 =J8 0051-549
Cytolytic enzyme purification - 46625U/33
DAMO- 28.03.79 DAMON CORP A96 B04 D22 =FR 2452-285
Encapsulating living tissue, protein etc. in membranes - 73451C/42
DANI/ 31.08.76 DANIELSON C V D21 E24 (E17) =GB 1583-255
Thickened aq. hair dyeing compsn. contg. disperse dye - 00102A/01
DECI- 17.05.79 DEC INT INC D13 =SE 8003-569
Curdled milk fines separation - 86617C/49
*DECK- 25.06.79 DECKER & HAARMANN C03 D13 (D11) *DE 2925-516
Packaged unused bread conversion to animal fodder - 03822D/04
DEGM 17.09.76 DEGREMONT SA D15 =CA 1091-371
Packaged plant for physicochemical purification of waste water - 04212A/03
DENX 01.02.79 DENTSPLY INT INC A96 D21 (A14) =J5 5149-3
Crosslinkable acrylic compsn. for mfg. dental appliances
60883C/35
DEPA- 18.03.79 DEPA SPA A96 B04 D16 S03 (S05) =BR 8003-16
Purified Herpes simplex viral antigen prepn. - 72077C/41
DIAS 18.06.79 DIAMOND SHAMROCK CORP C03 D13 =EP --21
Mixt. of vitamin/A with trace mineral supplement - 78812C/44
*DMON/ 17.10.80 DI BONAVENTURA M A17 D18 F01 (A32) *
689
Integrated prodn. of polyolefin fibres for cigarette filters - D/
*DNII 08.05.79 DAINIPPON INK INST CHEM D16 E24 *J5 5148-09
Red pigment prodn. by Monascus purpureus cultivation - 04658
*DNIN 16.03.73 DAINIPPON INK CHEM KK A96 B05 D22 (B03) *
218
Prepn. of ultrafine fluorocarbon emulsion for medicinal use - 04
*DNIN 08.05.79 DAINIPPON INK CHEM KK D16 E24 *J5 5148-091
Red pigment prodn. by Monascus purpureus cultivation - 04658D
*DORS- 01.06.79 DORSEY-MCCOMB DISTR D11 *GB 2051-656
Partially cooked farinaceous food extrusion device - 04317D/04
*DOWA 07.05.79 DOWA MINING CO LTD D15 *J5 5147-189
Improving quality of mine effluent - 04496D/04
*DOWC 20.06.79 DOW CHEMICAL CO A60 C01 D22 E11 *GB 2051
N-methyl-N'-halophenyl-P-imidazolyl phosphono:thioic di:amic
04341D/04
DOWO 23.04.76 DOW CORNING CORP A97 D25 E34 (A11 A25
=US RE30-472
Detergent for synthetic fabrics, esp. polyester(s) - 14072B/07
DOWO 29.03.79 DOW CORNING CORP A96 D22 =FR 2452-280
Protector for flexible bone joint prosthesis - 32518C/18
*DRAK 23 03.79 DRACKETT CO A97 D25 E19 (D16) *US 4243-546
Stabilised aq. protease or alpha-amylase enzyme compsns. - 055
DUPO 28.03.79 DU PONT DE NEMOURS CO A41 D15 E16 =FR 245
Redn. of 1,4-di:chloro-2-butene levels in aq. wastes - 69427C/39

EBAI 30.04.74 EBARA INFILCO KK D15 =J5 0140-374
Device for agglomerating waste water suspensions etc. - 05049D/
*EBAI 30.04.74 EBARA INFILCO KK D15 *J8 0051-616
Device for agglomerating waste water suspensions etc. - 05049D/
EBAI 27.02.75 EBARA INFILCO KK D15 =J5 1098-152
Agglomerating sedimentation tank - 04978D/04
*EBAI 27.02.75 EBARA INFILCO KK D15 *J8 0050-685
Agglomerating sedimentation tank - 04978D/04
*EBAI 04.05.79 EBARA INFILCO KK D15 J01 L02 *J5 5147-182
Heavy metal-contg. waste solidification - 04494D/04
*EBAI 08.05.79 EBARA INFILCO KK D15 J01 L02 *J5 5147-185
Solidification of finely powdered heavy-metal contg. wastes - 044
*EBAR 26.05.79 EBARA CORP D16 *EP --21-064
Composting organic material in rectangular bed - 04090D/04
*ECON 11.05.79 ECONOMICS LAB INC D25 E19 (D16) *US 4243-543
Stabilised liq. proteolytic enzyme compsns. - 05527D/04
EGER/ 29.03.78 EGER G D16 =US 4242-832
Mono:karyons prodn. from di:karyotic Basidiomycetes str
71712B/40
ELEX 09.02.71 ELECTROLUX AB D15 =J4 7018-154
Sewage treatment plant - 55289T/35
ELEX 09.02.71 ELECTROLUX AB D15 =J8 0050-710
Sewage treatment plant - 55289T/35
ELIL 31.07.72 ELI LILLY & CO B04 C03 D16 =J8 0051-556
Antibiotic A-2315 prepn - 12766V/07
ELIL 09.06.76 ELI LILLY & CO B02 D16 =GB 1583-062
(1)-Hydroxy-(6,6)-dimethyl-hexahydro-(9H) dibenzo (b,d)-pyran d
86592Y/49
ELIL 08.06.79 ELI LILLY & CO B02 C02 D16 =EP --21-685
Factor H of antifungal antibiotic A-30912 and its homologues - 9014
*ENER- 12.07.79 ENERGIAGAZDALKODASI C03 D13 *DE 2928-240
Animal feed prodn. from green fodder - 03909D/04
ENGH 29.04.77 ENGELHARD MINERALS CORP D16 H04 =GB 1583-
Removal of aromatics from paraffinic hydrocarbon(s) - 80495A/45
ENIE- 18.05.79 ENI ELEC NIJVERHEID D22 =SE 8003-625
Sterile conditioned atmos. for particular zone of room - 71611C/41
*ENVI- 09.04.79 ENVIRONMENTAL DYNAM D15 *US 4243-521
Aeration and settling of waste water - 05516D/04
ESTO- 05.01.79 ESTO-KLINKER EBERSD A97 D25 G04 =DS 2900-368
Stone cleaning and maintenance compsn. - 50034C/29
EVER- 01.06.79 EVERPURE INC D15 =GB 2051-770
Bacteriostatic water filters - 88370C/50
*EXNE/ 05.07.79 EXNER M D16 *DE 2927-141
Microorganism colonies transfer tool - 03874D/04

FARB 23.07.75 BAYER AG C03 D22 E16 =CH -620-670
Microbicidal N-methylol-chloro-acetamide prodn. - 67056X/36
FARB 28.09.76 BAYER AG B03 C02 D22 E13 (D21 D25) =US 4243-67
Alpha-4-bi:phenylyl benzyl azolium salts - 25540A/14
FARB 11.04.78 BAYER AG B04 D16 J04 S03 (B05 S05) =EP G004-649
N-Carboxy:acyl aminoacid ester derivs. - 75673B/42
FARB 25.05.79 BAYER AG A60 C03 D25 E19 =EP --21-003
Surfactant per:fluoroalkane sulphonamide salts - 90233C/51

HITA

*HITA 19.11.73 HITACHI KK D15 J02 *J8 0050-701
Aerating stirrer e.g. for fermentation tank - 04991D/04
*HITA 00.00.79 HITACHI KK D15 *J5 5147-111
Appts. for filtering waste water - 04459D/04
*HITA 00.00.80 HITACHI KK D15 J01 *J5 5147-107
Cleaning device for membrane separator - 04456D/04
HOFF 04.05.79 HOFFMANN-LA ROCHE AG B02 D22 E13 = J5 5149-287
2-Alanyl-clavam antibiotic - 38129C/21
*HOFF 20.06.79 HOFFMANN-LA ROCHE AG D16 *EP --20-961
Microorganisms detection apparatus - 04067D/04
HONT- 25.01.71 KENICS CORP D15 J02 = J8 0050-698
Dispersion prepn - 52575T/33
HOOR/ 06.10.75 HOOREMAN M C03 D13 (D16) = CH -620-707
Proteinaceous extracts prodn. from yeasts - 25264Y/15
HUBE 08.11.74 HUBER J M CORP D25 E33 J01 = CH -620-659
Alkali metal aluminosilicate with detergent props mfr. - 26505X/15
HYPO- 16.03.77 HYPOLAR SA A96 B04 D16 J04 (S03) = US 4243-749
Quantitative determination of hapten(s) - 69285A/39

ICIL 30.07.76 IMPERIAL CHEM INDS LTD B04 D16 J01 K08 (S03 S05) = GB 1582-956
Composite magnetic particles for immunoassay - 91082B/50
ICIL 12.04.79 IMPERIAL CHEM INDS LTD C02 D22 E13 (C03 E14) = J5 5147-255
Aromatic cpds. ortho-substd. by thiocyanato and carbamoyl - 79319C/45
*IMAI/ 11.05.79 IMAI H D21 E19 (E34 E36) *J5 5149-206
Single liq. material for prodn. of permanent wave - 04872D/04
INDK 29.05.79 IND WERKE KARLSRUHE AG D16 = BR 8003-343
Soil improver prodn. from pelletised refuse and sewage sludge - 88538C/50
INFL 21.01.75 INT FLAVORS & FRAGR INC C03 D13 E13 = J5 5149-273
3-Furyl-beta-chalcogen alkyl sulphides - 58110X/31
*INFL 07.10.76 INT FLAVORS & FRAGR INC D13 E13 *US 4243-688
Compsns. contg. 2-substd.-4,5-di:methyl-delta-3 thiazoline(s) - 05591D/04
*INFL 15.05.79 INT FLAVORS & FRAGR INC B05 D13 E17 (D13 D18 D21) *US 4243-823
2,6,6-Tri:methyl-cyclohexenyl-butenol derivs. - 05650D/04
INLI 31.05.73 INSTRUMENTATION LAB INC B04 D16 = CH -620-705
Large scale, safe cell propagation - 85951V/50
*INMI= 28.02.78 IND MICROORGANISM D16 (D13) *SU -734-263
Microbiological prodn. of glucoamylase - 05141D/04
*INOZ 24.09.76 INOUE JAPAX RES INC B04 D16 *J5 5148-090
Prepn. of fixed enzyme composite - 04657D/04
INOZ 27.09.76 INOUE JAPAX RES INC A97 D15 J01 = J5 3041-053
Purifying and dewatering appts. - 04992D/04
*INOZ 27.09.76 INOUE JAPAX RES INC A97 D15 J01 *J8 0050-712
Purifying and dewatering appts. - 04992D/04
*INSC 06.09.75 INST CERC CHIMICO-FARMAC B02 D16 *RO --65-096
Rifamycin-producing nocardia ICCF DZ2 505 mutant - D/04
*INSP- 11.02.76 INSPECT SILVIC COV D13 (D16) *RO --67-526
Mushroom paste prepn. from whole mushrooms or waste - D/04
*INTE- 26.03.79 INTER MEX-EUROPE C03 D13 (D12) *FR 2452-255
Solid protein recovery from abattoir refuse - 04232D/04
*INTE- 21.06.79 INTERMEDICAT GMBH A96 D22 *EP --21-343
Bag for ostomy patients - 04183D/04
*INTT 08.06.79 DEUT ITT IND GMBH D16 (D11) *EP --21-179
Selective inactivation of protease in commercial alpha-amylase - 04117D/04

JAGN 04.07.79 JAGENBERG WERKE AG D13 = GB 2051-754
Eliminating foam head on liq. with high frequency radiation - 31127C/18
JAPG 21.12.72 NIPPON ZEON KK D15 J01 = J8 0051-615
Waste sludge treatment - 39855W/24
JOAC/ 01.11.76 JOA C G D22 = CH -620-823
Easily packaged diaper with integral belt - 77620Y/44
JOHJ 03.12.75 JOHNSON & JOHNSON A96 D21 (A14) = CA 1091-161
Water resistant sunburn creams - 39800Y/23
JOHJ 17.06.77 JOHNSON & JOHNSON A96 D25 E16 = CA 1091-157
Mild cosmetic detergent compsn. esp. for shampoos and baths - 91499A/51
*JONS- 09.05.79 JONSON KK D25 E19 (E37) *J5 5147-598
Mfg. foaming powdered detergent compsn. - 04634D/04

KAAS- 30.05.79 KAAS SYST TEKNIK AP D15 = GB 2051-771
Purificn. of chlorinated water recycled for swimming pool etc. - 73486C/42
KAAS- 20.08.79 H & P KAAS SYSTEM T D15 = NO 8001-589
Purificn. of chlorinated water recycled for swimming pool etc. - 73486C/42
KALI 08.06.79 KALI-CHEMIE AG B04 D16 = EP --21-129
Pancreatin pellets prodn. - 84516C/48
KANA/ 18.09.73 KANAI M D15 J03 = J8 0050-720
Stabilisation of sludges - 69310X/37
*KANE- 12.01.78 KANEBO FOODS LTD A97 D11 *US 4243-689
Instant dry noodles prodn. - 05592D/04
*KANE- 19.01.78 KANEBO FOODS LTD A97 D11 *US 4243-690
Instant dry macaroni prodn. - 05593D/04
KANF 28.07.78 KANEGAFUCHI CHEM KK D15 J01 = EP --20-74
Tubular membrane separator - 20213C/11
KANK- 12.06.73 KANKYO KAG CENT D15 E19 = J8 0051-640
Chloracetaldehyde sepn from waste water - 54722X/29
KAOS 14.10.75 KAO SOAP KK A96 D21 E19 (A26) = US 4243-6
Hair protective compsn. comprising specified polyol esters - 12
KAOS 05.06.78 KAO SOAP KK A97 D25 E19 = US 4243-559
Liq. cleaner for oily kitchen soil - 89604B/50
KAOS 09.05.79 KAO SOAP KK A96 D22 (A35) = J5 5148-154
Water absorbent embossed laminated sheet - 00362D/01
*KAOS 09.05.79 KAO SOAP KK D23 *J5 5149-395
Continuous purification of oil and fat - 04969D/04
*KAOS 10.05.79 KAO SOAP KK B05 D23 E15 (D13) *J5 5149-218
Endo-2-oxo-6-tri:cyclo (6.2.1.0(2,6)undeca-exo-3-ol - 04879D/0
*KAOS 10.05.79 KAO SOAP KK B05 D23 E15 (D13) *J5 5149-220
Tri:cyclic ketone cpds. - 04881D/04
*KAOS 11.05.79 KAO SOAP KK D23 E15 *J5 5149-215
Exo-6-tri:cyclo-(6.2.1.0(2,6)-undec-2-ene - 04877D/04
*KAOS 17.10.79 KAO SOAP KK D22 *BE -885-049
Tampon with telescopic applicator - 03745D/04
KATZ/ 28.04.76 KATZ J D15 J01 = GB 1583-101
High volume liquid distillation - 11035C/06
*KAWA- 11.04.79 KAWAKEN FINE CHEM K B05 D21 E12 *J5 5149-
N-Acetylamino acid aluminium salts prepn. - 04888D/04
*KDPO= 15.06.78 KRASD POLY D14 *SU -735-440
Fruit and berry juice extraction press - 05280D/04
KENI- 25.01.71 KENICS CORP D15 J02 = J4 7027-870
Dispersion prepn - 52575T/33
*KERN/ 07.07.79 KERNER K D12 *DE 2927-606
Closure cap for humane killer - 03890D/04
KHSE= 26.03.79 KHARK SERP I MOLOT D15 X25 = FR 2452-305
Electrochemical effluent treatment plant - 73856C/42
KIBU- 21.07.75 KIBUN KK D13 = CA 1091-081
Soybean milk prodn. without beany flavour or bitterness - 54986B
*KIKK 08.05.79 KIKKOMAN CORP D16 *J5 5148-087
Yeast prodn. by fermentation in medium contg. acetate ions - 04
KILC- 01.12.77 KILCHER-CHEMIE AG D15 J01 = US 4243-536
Cross-flow filtering appts. - 44431B/24
*KIMB 22.06.79 KIMBERLY CLARK CORP A96 D22 F07 *NL 8003-57
Disposable baby napkin with impermeable outer polyethylen
05081D/04
*KITA 07.05.79 KITASATO RES INST B04 D16 *J5 5147-298
Antibiotic AM-3696B - 04540D/04
KKIR= 21.06.76 KAZA KIROV UNIV D13 E14 = J8 0051-619
Catalyst for hydrogenolysis of dimethyl-dibutyl hydroxy-benzyl
00005A/01
*KLIN/ 13.06.77 KLINE L D11 (D16) *US 4243-687
Freeze dried bakery compsn. - 05590D/04
KNAP 16.03.72 KNAPSACK AG A97 D25 = J8 0051-000
Detergent builders - 58439U/40
KNAP 23.05.79 KNAPSACK AG A97 C04 D15 E36 = EP --20-904
Waste-water sludge dewatering - 88489C/50
KNAU/ 30.09.77 KNAUTH H D17 = DS 2744-067
Continuous hydrolysis of vegetable matter - 28033B/15
KOBM 31.05.72 KOBE STEEL KK D15 J01 = J4 9010-881
Tank for reverse osmotic sepn. of liquids - 05042D/04
*KOBM 31.05.72 KOBE STEEL KK D15 J01 *J8 0051-606
Tank for reverse osmotic sepn. of liquids - 05042D/04
KOHL/ 28.05.71 KOHLER G O C03 D13 = RO --66-357
Edible cytoplasmic protein - 79767T/50
*KOLO/ 25.02.72 KOLOTYGIN YU A D15 H05 *SU -735-573
Softening of mineralised aq. waste, e.g. petroleum processing
05295D/04
KONN 19.11.74 GIST-BROCADES NV D16 (D25) = J5 5148-086
Detergent compsns contg. protease - 42348X/23
KOPP- 23.05.79 KOPPENS MACHINEFAB D13 = SE 8002-170
Moulding croquettes - 88609C/50
*KOSY/ 05.10.77 KOSYANCHUK B P D18 *SU -735-635
Fibrous waste, e.g. leather offcuts, grinder - 05324D/04
KRFT 27.03.78 KRAFT INC D13 = CA 1091-179
Appts. for pressing and deaeration of curd cheese - 79095B/43
KRUG- 22.06.78 KRUGER I A/S D15 = US 4243-522
Heat recovery system on effluent discharge - 03782C/03
*KRUG- 18.05.79 FA KRUGER H D15 *SE 7904-393
Water purification process - D/04
KURE 16.09.77 KUREHA KAGAKU KOGYO C03 D16 = US 4243-662
Nitrogen-contg. polysaccharide active against plant viruses - 2638
KURK 05.08.77 KURITA WATER IND KK D15 = J5 4028-069
Waste water filter - 04984D/04
*KURK 05.08.77 KURITA WATER IND KK D15 *J8 0050-691
Waste water filter - 04984D/04
KURS 17.09.73 KURARAY KK A96 B04 D16 = J8 0051-552
Immobilising ensymes in PVA - 66308W/40

8.05.75 KURARAY KK A14 D16 (A35) = J5 1130-578
milative decomposition of PVA - 05036D/04
8.05.75 KURARAY KK A14 D16 (A35) *J8 0051-554
milative decomposition of PVA - 05036D/04
4.05.75 KURARAY KK A14 D16 F06 (A35) = J8 0051-555
milation decomposition of polyvinyl alcohol in waste soln. - 50Y/01
25.03.76 KURARAY KK A35 D16 (D15) = J8 0050-679
omposing glyoxalic resin from fibre-processing plants - 80613Y/45
28.03.79 KURARAY KK C03 D22 E19 (C02) = FR 2452-478
bacterial and antiulcer farnesyl:acetamide derivs. - 71877C/41
02.05.79 KYODO NYUGYO KK D16 *J5 5148-063
oured agar-gel resistant to loss of pigment - 04649D/04
04.05.79 KYOWA HAKKO KOGYO KK B03 D16 E13 *J5 5148-096
oline prodn. - 04662D/04
07.05.79 KYOWA HAKKO KOGYO KK B05 D16 E36 *J5 5148-094
lutamine prodn. - 04661D/04
05.07.79 KYOWA HAKKO KOGYO B04 D16 *DE 3025-424
actose oxidase microbiological prodn. - 04003D/04
05.01.77 KYORITSU YUKI CO LTD A91 C03 D15 (A14) = GB 1583-

ter soluble pearl polymer prodn. - 51927A/29

/ 31.08.77 LAGOSHA I A D12 *SU -735-231
at cutter with reduced loss of crumb and juices - 05184D/04
04.06.76 LEFEUVRE S D11 = GB 1583-182
ad baking process - 90529Y/51
18.07.73 VEB CHEM MONT LEIPZ D16 H04 #RO --70-055
e biomass prodn. in hydrocarbon-contg. medium - 04102W/03
/ 16.11.78 LENNAARD D A92 D22 F09 (A96) = DK 8002-971
at-sealable bag for sterile packing - 41476C/23
= 21.03.79 LENGD REFRIG INST D15 = DE 3010-748
ating sewage on board ship - 73964C/42
31.05.78 LESIEUR COTELLE SA D13 (D23) = US 4243-603
ating fats, esp. palm oil - 71796B/40
18.06.79 LIFE SAVERS INC A97 D13 *DE 3022-789
lorie-free chewing gun compsn. - 03956D/04
21.06.79 LIFE SAVERS INC D13 = NL 8003-576
w-sugar chewing gum compsns. - 02290D/03
05.07.79 LINDE AG D18 T06 X25 *DE 2927-188
dothermal tobacco fermentation in pure oxygen or oxygen-rich gas - 876D/04
08.05.79 LION HAMIGAKI KK A96 D21 (A25) *J5 5147-216
ir dressing compsn. - 04514D/04
10.05.79 LION CORP A87 D22 E19 F06 (A25 A96 D21) *J5 5149-367
erilising softening agent compsn. - 04954D/04
= 01.03.78 LIVANY EXPER BIOCHEM WKS A97 C03 D13 = DS 2808-

ed-concentrate powder polymer coating - 68219B/38
11.03.76 LAB LABAZ B03 D16 = CH -620-944
omycin and paramomycin analogues - 64939Y/37
16.11.72 LOCTITE CORP A96 D21 = US 4243-578
ntal filling compsns. contg. urethane-acrylate monomers - 43934V/24
24.03.79 LOIRE COSMETICS CO B07 D21 = FR 2452-314
ulsifier for creams and lotions - 71850C/41
/ 11.06.75 LUTHY E D18 = CH -620-709
rice tanned leather for upholstering furniture and cushions - 81255X/44

6- 13.03.78 M A J SOC & R L D22 = US 4242-852
erilising and vacuum sealing rack - 68510B/38
S/ 12.12.77 MAKSIMOV G N D15 J01 *SU -735-277
eneral purpose liquids filter - 05196D/04
K/ 06.12.77 MARKEVICH I D D14 S03 *SU -734-559
odstuff, e.g. tea, quality control appts. - 05172D/04
I- 16.09.76 INST MASINI INSTAL D14 *RO --68-232
ntinuous gravimetric grader for foodstuffs - D/04
S/ 13.07.79 MASSARO M F D12 *US 4242-774
eat tenderiser comprises handled plate - 05394D/04
W 14.07.79 MASCH BUCKAU WOLF D15 *DE 2928-525
ater aeration tower - 03919D/04
S/ 08.07.75 MATSUZAKI M D15 = J5 2007-072
ater filter for sewage and effluent - 04983D/04
S/ 08.07.75 MATSUZAKI M D15 *J8 0050-690
ater filter for sewage and effluent - 04983D/04
U 08.05.79 MATSUSHITA ELEC IND KK D16 J04 (D13) *J5 5149-050
zyme electrode - 04817D/04
U 09.05.79 MATSUSHITA ELEC IND KK D16 J04 *J5 5148-089
mplexes of enzymes and redox cpds. - 04656D/04
W- 04.03.70 MAXWELL DAVIDSON LTD D15 J01 = J8 0051-601
ate type evaporator - 63604S/40
U/ 16.04.76 MCCULLOUGH T J D12 = CA 1091-138
eat tenderising knives mounted on ram - 75094B/41
O 03.05.76 MCDOWELL CO B04 D16 S03 S05 = DS 2712-072
eudomonas aeruginosa determination in urine - 81425Y/46

*MEAT- 05.06.79 MEAT IND RES NZ INC D12 X25 *EP --21-198
Hide pulling while electrically shocking carcass - 04123D/04
MEDI= 01.03.78 MED TECH RES INST A97 C03 D13 = DS 2808-803
Feed-concentrate powder polymer coating - 68219B/38
*MEDZ 29.06.79 VEB MEDIZINTECH LEIPZIG A96 D21 *DE 3019-539
Mineral tooth contg. silane-coupled plastic coating - 03937D/04
MEGG 27.06.79 MEGGLE MILCHIND GMB D13 = EP --21-200
Snack products based on casein foam - 02143D/03
MEIS- 08.12.77 MEISUI KOGYO YG D15 = J5 4079-876
Continuous filtering of dirty water - 04982D/04
*MEIS- 08.12.77 MEISUI KOGYO YG D15 *J8 0050-689
Continuous filtering of dirty water - 04982D/04
MERI 26.08.76 MERCK & CO INC A97 D13 F06 H01 (A11) = CA 1091-083
Synergistic thickening agent mixt. - 18119A/10
MERI 17.05.79 MERCK & CO INC B02 C03 D16 E13 (D13) #SE 7904-349
Recovery of purified riboflavin from fermentation broths - 66229B/36
MERK/ 13.06.79 MERKL A C03 D13 = EP --21-052
Bird feed block e.g. bar or rod - 00128D/01
MICR- 27.03.79 MICRO-CHEM DEV LAB D15 S05 T06 X25 = FR 2452-289
Ultraviolet water steriliser - 73863C/42
*MIKA 04.05.79 MIKASA KAGAKU KOGYO KK A97 D15 *J5 5147-597
Cleaning and deodorising compsn. for stool flushing water - 04633D/04
MILE 04.02.74 MILES LABORATORIES INC D13 = J8 0051-533
Simulated bacon with natural texture - 42710W/26
MILE 16.03.77 MILES YEDA LTD A96 B04 D16 J04 (S03) = US 4243-749
Quantitative determination of hapten(s) - 69285A/39
*MILK= 31.08.77 MILK IND RES INST D16 (D13) *SU -734-277
Prodn. of soured milk prods. - 05149D/04
*MINN 29.12.77 MINNESOTA MINING CO B05 D21 E19 *US 4243-658
Redn. of elution of applied therapeutic agents from teeth - 05580D/04
*MIRA- 30.06.75 MIRAJ INTR PROD COS D21 *RO --67-798
Aq. greasy skin mask compsn. - D/04
*MIRA- 30.06.75 MIRAJ INTR PROD COS D21 *RO --67-799
Aq. acne skin mask compsn. - D/04
*MIRA- 09.07.75 MIRAJ INTR PROD COS A96 D22 *RO --68-155
Skin protection against solvent contg. petroleum derivs. - D/04
MITK 09.05.79 MITSUI TOATSU CHEM INC B02 D16 E13 = J5 5148-095
L-Tryptophan prodn. from D.L- or D-serine - 85628C/48
*MITN 08.05.79 MITSUBISHI GAS CHEM IND B05 D16 *J5 5148-084
Cultivation of coenzyme/Q producing yeast or bacteria - 04653D/04
MITO 26.08.74 MITSUBISHI HEAVY IND KK D15 J02 = J5 1024-976
Stirring device, e.g. for water purifying plant - 04990D/04
*MITO 26.08.74 MITSUBISHI HEAVY IND KK D15 J02 *J8 0050-700
Stirring device, e.g. for water purifying plant - 04990D/04
MITO 25.00.75 MITSUBISHI HEAVY IND KK D15 = J8 0050-683
Solids sepn from sewage water - 62153X/33
*MITO 14.05.76 MITSUBISHI HEAVY IND KK D15 *J5 5147-197
Multistage waste water treatment - 04502D/04
*MITO 04.05.79 MITSUBISHI HEAVY IND KK D15 *J5 5147-110
Sand filter for treating dirty or waste water - 04458D/04
MITP 22.07.74 MITSUBISHI KOG CEM D15 L02 = J8 0051-635
Solid treatment of waste material - 19843X/11
MITQ 23.01.73 MITSUBISHI ELECTRIC CORP D15 = J4 9097-776
Gas dispersing appts. supplying gas to liq. - 05050D/04
*MITQ 23.01.73 MITSUBISHI ELECTRIC CORP D15 *J8 0051-618
Gas dispersing appts. supplying gas to liq. - 05050D/04
*MITQ 07.05.79 MITSUBISHI ELECTRIC CORP D15 *J5 5147-124
Appts. for producing water from gas - 04468D/04
*MITQ 07.05.79 MITSUBISHI ELECTRIC CORP D15 *J5 5147-125
Device for removing water from gaseous atmos. e.g. air - 04469D/04
*MITQ 07.05.79 MITSUBISHI ELECTRIC CORP D15 *J5 5147-126
Device for removing water from gaseous atmos. e.g. air - 04470D/04
*MITQ 07.05.79 MITSUBISHI ELECTRIC CORP D15 *J5 5147-127
Appts. for producing drinking water from moisture in atmos. - 04471D/04
*MITQ 07.05.79 MITSUBISHI ELECTRIC CORP D15 *J5 5147-128
Appts. for producing drinking water from moisture in atmos. - 04472D/04
*MITQ 07.05.79 MITSUBISHI ELECTRIC CORP D15 *J5 5147-191
Waste water treatment - 04498D/04
*MITQ 07.05.79 MITSUBISHI ELECTRIC CORP D15 *J5 5147-192
Treating waster water contg. hydrogen peroxide - 04499D/04
*MITQ 07.05.79 MITSUBISHI ELECTRIC CORP D15 E36 *J5 5147-193
Treatment of thiosulphate-contg. waste water - 04500D/04
*MITQ 08.05.79 MITSUBISHI ELECTRIC CORP D15 *J5 5147-113
Appts. for concentrating sludge or suspension - 04461D/04
*MITQ 08.05.79 MITSUBISHI ELECTRIC CORP D15 *J5 5147-114
Concentrator for suspension or sludge - 04462D/04
*MITQ 08.05.79 MITSUBISHI ELECTRIC CORP D15 *J5 5147-115
Sludge dewatering device - 04463D/04
*MITQ 08.05.79 MITSUBISHI ELECTRIC CORP D15 *J5 5147-121
Appts. for producing pure water from gas - 04465D/04
*MITQ 08.05.79 MITSUBISHI ELECTRIC CORP D15 *J5 5147-122
Appts. for producing water from gas - 04466D/04
*MITR/ 07.07.77 MITROPOLSKII A N D15 T06 *SU -735-572
Sea water thermal desalination control - 05294D/04

MITS-

MITS- 12.03.77 MITSUBOSHI KAGAKU G D15 L02 = J8 0050-903
Coagulating agent for waste water or sludge - 80722A/45
MITU 30.09.72 MITSUBISHI CHEM IND KK D16 = J8 0051-548
Aerobic Protozoa cultivation - 70229V/40
MITU 10.08.73 MITSUBISHI CHEM IND KK D15 J01 = J5 0038-359
MITU 10.08.73 MITSUBISHI CHEM IND KK D15 J01 = J5 0038 359
Organic anion-contg. waste water treatment - 05051D/04
*MITU 10.08.73 MITSUBISHI CHEM IND KK D15 J01 *J8 0051-636
Organic anion-contg. waste water treatment - 05051D/04
MITU 11.11.74 MITSUBISHI CHEM IND KK D16 = J8 0051-553
Insoluble glucose-isomerase preservation - 49095X/26
MITU 05.01.77 MITSUBISHI CHEM IND KK A91 C03 D15 (A14) = GB 1583-235
Water soluble pearl polymer prodn. - 51927A/29
*MITU 04.05.79 MITSUBISHI CHEM IND KK D16 *J5 5148-083
Mutant strain comprising microorganism of genus Nocardia - 04652D/04
*MIZA 07.05.79 MIZUSAWA KAGAKU KOG D23 *J5 5147-596
Purificn. of gummy-contg. vegetable oils - 04632D/04
MIZA 00.00.80 MIZUSAWA KAGAKU KOG A97 D25 = J5 5149-120
Alkali alumino-silicate zeolite detergent builder - 38465Y/22
*MOCH 04.05.79 MOCHIDA PHARM KK B04 D16 *J5 5147-225
Remedy for allergic disease - 04517D/04
*MODE= 08.02.77 MOSC AREA PEDAGOGIC INST D22 *SU -735-280
Air sterilising equipment for removing bacterial aerosol particles - 05199D/04
*MOFO= 08.02.78 MOSC FOOD TECHN INS D17 S03 *SU -734-561
Quantitative determn. of dyestuffs in raw sugar etc. - 05173D/04
*MOLN 02.07.79 MOLNLYCKE AB D22 F07 *DE 3023-776
Disposable baby napkin with enveloped elastic thread structure - 03982D/04
MOLN 02.07.79 MOLNLYCKE AB D22 F07 = GB 2051-557
Disposable baby napkin with enveloped elastic thread structure - 03982D/04
*MOMA= 16.11.77 MOSC MAGARACH HORTI A97 D16 *SU -734-267
Prodn. of wine from conc. grape juice - 05142D/04
*MOMD 13.04.78 MOSCOW MEAT DAIRY INST D12 *SU -735-232
Heat-processing equipment for meat prods. for children - 05185D/04
MONA- 30.11.78 MONA INDS D25 E11 = US 4243-602
Phosphorus-contg. surfactants mfr. - 57234C/33
*MONS 10.11.75 MONSANTO CO A14 D15 E13 M14 (A97) *US 4243-591
Poly-(vinyl-phosphonomethylene-amino-carboxylates) - 05550D/04
MONT 15.02.74 MONTEDISON SPA D23 E13 = CH -620-914
2,5-Dimethyl-3-(2H)-furanone prepn. - 57476W/35
*MORA- 12.09.75 INTR MORARIT PANIFI D11 T06 *RO --67-743
Twin drum cutter for bread-baking - D/04
MORG 26.05.77 MORINAGA MILK KK D17 E13 = GB 1583-313
Non-hygroscopic lactulose powder prodn. - 67108A/38
MORG 24.11.78 MORINAGA MILK KK D16 (D13) = EP --20-781
Lactose decomposition prod. soln. prodn. - 41464C/23
*MOSU 29.12.78 MOSCOW LOMONOSOV UNIV B04 C03 D16 S03 (X25) *SU -734-282
Prodn. of blood-forming tissue cells in chick - 05152D/04
MOVI= 23.05.79 MOSC VIRUS PROPNS B04 C03 D16 #DE 2921-040
Living virus culture vaccine against canine distemper - 90796C/51
MRSC 11.04.79 MARS LTD D13 = J5 5148-064
Gelled edible products - 79347C/45
MULL/ 18.07.75 MULLER D D13 (D22) #CH -620-814
Uniform release of flavourants and odorants - 81536W/50

NAAR 02.10.74 NAARDEN INT HOLLAND D22 E17 = CH -620-588
Solid perfumed compsns. with regulatable evapn. rates - 26320X/14
*NADI 29.05.79 NATIONAL DISTILLERS CORP D16 E17 *BR 8003-333
Anhydrous ethanol prodn. from dil. aq. ethanol - D/04
NADI 29.05.79 NATIONAL DISTILLERS CORP D16 = BR 8003-334
Continuous prepn. of ethanol - 03679D/03
*NADI 29.05.79 NATIONAL DISTILLERS CORP D16 *US 4243-750
Continuous prepn. of ethanol from starch - 05615D/04
NAGA/ 22.10.76 NAGASAWA T D14 = J5 3052-676
Slurry filtering device - 05046D/04
*NAGA/ 22.10.76 NAGASAWA T D14 *J8 0051-610
Slurry filtering device - 05046D/04
*NAKA- 02.05.79 NAKANO SU-MISE KK D13 *J5 5148-073
Mozuku food with improved storage properties - 04651D/04
NATT 29.05.79 NAT STARCH & CHEM CORP D17 (D13) = BR 8003-198
Modified tapioca starch forming gel in cold water - 67780C/39
NEST 17.12.74 MAGGI AG D13 = DS 2549-391
Instantly soluble dehydrated food products - 42010X/23
NEST 04.02.76 SOC PROD NESTLE SA D13 = SU -735-152
Cheese spread prodn. from ultrafiltered milk - 57892Y/33
*NICA 07.05.79 NIPPON CARBIDE KOGY KK A97 D12 *J5 5148-072
Synthetic salmon roe foodstuff - 04650D/04
*NICO- 01.02.75 NICOLAU INST VIRUSO B04 D16 S03 *RO --66-687
Sheet cytology analyser - D/04
*NIHS 09.05.79 NIPPON SURFACTANT KK B05 D21 *J5 5149-227
Antiinflammatory glycyrrhetinic acid fatty acid ester - 04885D/04
NIIG 10.02.76 NIGATA PREFECTURE D13 (D16) = J8 0050-666
Fermented bean paste prodn. - 68031Y/38

NINA/ 23.10.72 NINAGAWA T A97 D15 = J8 0051-639
Spongy activated sludge waste water purifier - 08205W/05
*NIOF 09.05.79 NIPPON OILS & FATS KK A25 D25 E16 *J5 5149-
Polyoxyalkylene fatty acid amide sulphuric acid ester sa
04891D/04
NIRA 19.10.77 UNITIKA KK A96 B04 D22 (B05) #GB 1583-008
Polymer articles prodn. with reduced thrombogenic t
35563B/19
NIRA 23.05.79 UNITIKA KK D16 = SE 8003-858
Continuous culture of bacteria for acetate kinase prodn. - 8864
*NISO- 04.05.79 NIPPON SOLID KK D15 *J5 5147-190
Deodorisation of effluent in waste treatment - 04497D/04
NISY 05.10.76 NIPPON GOHSEI KAGAK B05 C03 D22 E17 (D1
= J8 0050-674
Powdered sorbic acid of improved handling properties - 27268A
NITL 19.07.76 NITTO ELECTRIC IND KK A94 D22 F07 (A96) =
790
Composite material for sanitary or table napkin etc. - 20586A/1
NITL 22.12.77 NITTO ELECTRIC IND KK A97 C03 D22 = DS 2833-2
Antibacterial and antifungal materials - 49538B/27
NITO 28.00.75 NITTO BOSEKI KK D15 = J5 1077-971
Tank for sepg. dirty water into clean water and solid grains - 049
*NITO 28.00.75 NITTO BOSEKI KK D15 *J8 0050-684
Tank for sepg. dirty water into clean water and solid grains - 049
*NODA- 10.05.79 NODA SHOKUKIN KOGYO C03 D16 *J5 5149-20
Colour-promoting and sweetness-intensifying agent for citr
04871D/04
NOVE- 26.03.79 NOVEX TALAMANYFEJLE D15 J01 = FR 2452-304
Separator for liq. systems - 71801C/41
NSOG 11.09.72 NIPPON SOGO BOSUI K D15 L02 = J4 9048-154
Purificn. of asphalt emulsion-contg. waste liquor - 04993D/04
*NSOG 11.09.72 NIPPON SOGO BOSWI KK D15 L02 *J8 0050-717
Purificn. of asphalt emulsion-contg. waste liquor - 04993D/04

*OCCI 27.06.77 OCCIDENTAL PETRO CORP C04 D13 E36 *US 4243
Removing metal impurities from wet process phosphoric
05570D/04
*ODES= 03.02.77 ODESS FOOD SUPPLY D13 *SU -735-235
Oriented circular root vegetables gripper - 05188D/04
OETK- 04.07.79 OETKER TIEFKUHLKOST GMBH D13 = GB 2051-54
Incorporating seasoning and fats in frozen food - 12872C/08
OREA 15.10.75 L'OREAL SA A96 D21 = CA 1091-156
Cosmetics contg. polymers of unsatd. cpds. with hydroxylic
27146Y/16
OREA 13.11.75 L'OREAL SA A96 D21 (A26) = CA 1091-158
Polymers contg. quat. ammonium groups - 34501Y/20
OREA 21.04.76 L'OREAL SA D21 E24 = J5 5149-349
(3)-Nitro-(4)-hydroxy-ethylamino phenol and ring alkyl d
75874Y/43
OREA 03.05.76 L'OREAL SA D21 E13 = GB 1583-102
Cosmetics contg. quinoxaline di-(N)-oxide derivs. - 85029Y/48
*OREA 19.07.76 L'OREAL SA 'A96 B04 D21 *FR 2452-505
Surfactant oligomers with opt. modified amine groups - 04259D/0
OREA 27.02.79 L'OREAL SA A96 D21 = J5 5147-215
Keratin material treatment with shampoos and lotions - 64466C/3
OREA 26.04.79 L'OREAL SA D21 E24 = SE 8003-095
Substd. meta-phenylene di:amine cpds. - 78918C/45
OREA 15.05.79 L'OREAL SA D21 = DK 8002-096
Cosmetic compsn. for the hair, pref. a shampoo - 84341C/48
OREA 18.06.79 L'OREAL SA D21 E24 = NL 8003-419
Hair colouring compsn. contg. 2,4-di:amino butoxy benzene - 007
*ORLO= 17.06.77 ORLOVO LIGHT ENG RE D18 *SU -735-634
Leather skin buffer - 05323D/04

*PAPI- 03.07.79 PAPIER & KUNSTSTOFF D13 *DE 2926-739
Pasteurised milk filling plant - 03860D/04
PASC/ 03.12.76 PASCAL R B05 C03 D21 E19 (D13 D24) = US 4243-8
Alpha-amino acid prodn. from amino nitrile - 38450A/22
*PAUL/ 10.09.76 PAUL M D D22 *US 4243-041
Cold therapy pack after facial surgery - 05427D/04
*PETE/ 30.05.79 PETERS L D12 *GB 2051-550
Cooking meat esp. hamburgers without juice loss - 04295D/04
PFIZ 28.08.75 PFIZER INC B03 C02 D13 E13 (D23) = CH -620-917
(3)-Hydroxy gamma:pyrones prepn. - 11094Y/07
PFIZ 15.06.76 PFIZER INC B03 C02 D22 E13 (D15 T05) = CH -620-91
Antibacterial and growth-promoting quinoxaline 1,4)-dioxide d
00365A/01
*PHIG 18.06.79 PQ CORP D25 E33 *EP --21-267
Agglomerated zeolite ion exchange compsn. - 04153D/04
*PHIM 12.01.79 PHILIP MORRIS INC D18 *US 4243-056
Impregnating tobacco with additives e.g. flavourings - 05429D/04
*PINO/ 07.05.79 PINONEN P D15 J01 *J5 5147-112
Internal fluidal system for filtering appts. - 04460D/04
PIST/ 26.05.79 PISTOR M D11 X27 (X26) = GB 2052-036
Electric oven lamp fitting - 86555C/49
*PLAN= 15.11.77 PLANT PROTECT BACTE D16 E17 *SU -735-590
Lactic acid prodn. by culturing Streptococcus lactis - 05306D/04

07.07.76 PLM AB D16 =GB 1583-190
bic, thermophilic microbial decomposition of waste - 04792A/03
14.10.77 PQ CORP D25 E33 *US 4243-545
rgent compsns. with silane-zeolite silicate builder - 05528D/04
04.12.74 PROCTER & GAMBLE CO D13 =CH -620-574
ht extractable ground roasted coffee flakes - 46431X/25
27.06.77 PROCTER & GAMBLE CO D22 F04 =CA 1090-995
-density disposable absorbent bandage - 10315B/06
16.02.79 PROCTER & GAMBLE CO A97 D25 E33 (A25) =J5 5147-599
rgent contg. sodium aluminosilicate - 64594C/37
23.02.79 PROCTER & GAMBLE CO D21 *J5 5147-214
conditioning composition - D/04
27.02.79 PROCTER & GAMBLE CO D21 E19 =J5 5149-398
cleaning compsn. contg. soap and conditioner - 64597C/37
05.03.79 PROCTER & GAMBLE CO A32 D22 (A96) =J5 5146-738
e simulating moisture transmitting thermoplastics film - 79282C/45
18.05.79 PROCTER & GAMBLE CO D13 E13 (E34) *US 4243-691
dium free compsn. salt substitute - 05594D/04
07.04.76 PURDUE RESEARCH FOUNDATI B04 D16 J04 *US 4243-753
zyme detection by reacting in vessel holding glass beads - 05616D/04
- 08.01.71 PFW NEDERLAND BV D13 E13 =DS 2165-808
phur derivs of furans or thiophenes - 49287T/31

22.05.71 Q.P. CORP A92 D14 (A82) =J4 8001-148
od sterilisation under high pressure - 04975D/04
22.05.71 Q.P. CORP A92 D14 (A82) *J8 0050-671
od sterilisation under high pressure - 04975D/04

07.09.79 RALSTON PURINA CO D13 *BE -885-090
otein isolated from defatted vegetable protein - 03755D/04
- 03.07.79 RAMISCH KLEINEWEFER D11 *DE 2926-753
led edible strands cutting machine - 03861D/04
S/ 01.03.78 RANSMARK S E L D15 *US 4243-526
ine desalination by spraying into hot air stream - 05518D/04
L/ 08.03.74 RAWLINGS R M C03 D13 =RO --67-354
ed supplement for ruminants - 25829W/15
30.05.79 RECKITT & COLMAN PROD D25 E16 (E12 E34) =BR 8003-

q. thickened bleach compsns. - 02418D/03
30.05.79 RECKITT & COLMAN PR D25 E16 (E12 E34) =NO 8001-570
q. thickened bleach compsns. - 02418D/03
- 12.01.78 REDPATH SUGARS LTD D16 (D17) =CA 1091-172
mobilising enzymes with mercapto substits. - 84664B/47
- 25.10.72 RES FOUND PROD DEV B02 D16 =J8 0051-558
ovel vitamin B2 deriv - 02620W/02
/ 31.05.79 REINSTORFF D A96 B04 D16 E12 =GB 2051-795
lns. of triquinoyl, its radicals or polymers prodn. - 88558C/50
21.02.79 REPUBLIC STEEL CORP D15 H09 =J5 5147-198
oking plant waste water purification - 64417C/37
15.04.74 REYNOLDS TOBACCO CO D18 =J8 0051-544
moking mixture of expanded cereal grains - 73526W/44
22.06.79 RICHARDSON-MERRELL INC D13 =EP --21-102
erbal sweets mfr. - 02118D/03
/ 11.07.79 RIESS G D21 (D22) *DE 2928-007
one implant for prosthesis and bone-connectors - 03903D/04
07.06.79 SYBRON CORP D21 M26 *US 4243-412
ickel base dental alloy of good porcelain adherence - 05465D/04
D= 25.10.76 ROAD CONS MACH D13 *SU -735-234
onveyor and starch powder coating remover for confectionery - 5187D/04
E- 22.06.79 RYDER INT CORP D22 *US 4243-632
ontact lens disinfector has temp. indicator - 05566D/04

T= 03.10.77 SAMTREST IND UNION D16 *SU -734-269
rape vodka prodn. - 05143D/04
F- 26.06.79 LAB SANFER AGRICULT D22 W01 *BR 7904-026
eodorant and anti-bactericide for telephone sets - D/04
K- 19.11.77 SANKO SEISAKUSHO KK D15 =J5 4071-852
pparatus for sepn. of solids from waste water - 04981D/04
K- 19.11.77 SANKO SEISAKUSHO KK D15 *J8 0050-688
pparatus for sepn. of solids from waste water - 04981D/04
Y 09.05.79 SANKYO KK B04 C03 D16 *J5 5149-297
erbicidal antibiotics herbicidin(s) C, E, F and G - 04914D/04
D 14.06.75 SCHERING AG A60 C01 D22 F06 =CH -620-573
iocidal compsns. contg. (new) diptycho tin cpds. - 96287X/52
D 21.06.79 SCHERING AG B04 D16 =DE 2925-388
rodn. of murine immunoglobulin E antibodies - 15084C/09
U/ 26.04.80 SCHULENBURG F D13 *DS 3016-163
leaning cream curds vat - 04031D/04
W- 07.06.79 SCHWAN-STABILO SCHW D21 =EP --21-135
rodn. of solid cosmetic products - 90350C/51
Z 25.06.79 SCM CORP D13 =EP --21-279
ow fat coffee whitener - 01578D/02

SEIT 11.05.79 SEITETSU CHEM IND KK D18 E13 (E31 E33) =J5 5149-400
Pickling hides before tanning in presence of urotropin - 86838C/49
SHEL 29.08.66 SHELL INT RES MIJ BV D18 E16 F06 (F09) #DS 1593-421
Cationic ester contg. quaternary nitrogen - 01234Z/00
*SHIA 07.05.79 SHINKO KABAKU KOGYO KK B07 D21 E17 *J5 5147-232
Higher diol cpds. useful as base for ointments etc. - 04519D/04
*SHIA 07.05.79 SHINKO KAGAKU KOGYO KK B05 D21 E17 (B07) *J5 5147-238
Branched esters of higher divalent alcohol - 04523D/04
*SHIA 07.05.79 SHINKO KAGAKO KOGYO K B05 D21 E17 (B07) *J5 5147-240
Higher di:basic acid branched ester - 04524D/04
*SHIA 07.05.79 SHINKO KAGAKU KOGYO K B05 D21 E17 (B07) *J5 5147-241
Oily ester compound useful in cosmetics and pharmaceuticals - 04525D/04
SHIF 13.01.77 SHINMEIWA IND KK D15 =J5 3088-263
Device for dispersing water into waste water - 05048D/04
*SHIF 13.01.77 SHINMEIWA IND KK D15 *J8 0051-614
Device for dispersing water into waste water - 05048D/04
*SHIG/ 04.05.79 SHIGETOMI Y D15 J01 *J5 5147-104
Extracting metal salt or colloid from aq. phase - 04454D/04
*SHIN- 07.05.79 SHINEI KAGAKU KK B05 D21 E17 (B07) *J5 5147-238
Branched esters of higher divalent alcohol - 04523D/04
*SHIN- 07.05.79 SHINEI KAGAKU KK B05 D21 E17 (B07) *J5 5147-240
Higher di:basic acid branched ester - 04524D/04
*SHIN- 07.05.79 SHINEI KAGAKU KK B05 D21 E17 (B07) *J5 5147-241
Oily ester compound useful in cosmetics and pharmaceuticals - 04525D/04
*SHNE 07.05.79 SHINEI KAGAKU KK B07 D21 E17 *J5 5147-232
Higher diol cpds. useful as base for ointments etc. - 04519D/04
*SIAG= 05.07.78 SIBE AGRIC INST RES D14 *SU -735-439
Dewaterer for green vegetable fodder etc. - 05279D/04
SINA- 18.05.79 SINATIN SIST NAT IN D23 (D16) =DK 8002-148
Prepn. of oak flavour used for ageing alcoholic prods. - 64236C/37
SLAG- 16.05.79 SLAGTERIERNES FORSK D12 S03 X25 =DK 7902-029
Detecting boar taint in carcasses of non castrated boars - 90130C/50
SMIN 03.12.76 SMITH & NEPHEW LTD A96 D22 L02 (A93) =US 4243-567
Poly:carboxylate based cement contg. water soluble glass - 27008A/15
SNAM 11.05.73 SNAMPROGETTI SPA B05 D16 E16 =CH -620-943
Optically active amino acids prodn. - 69536V/40
SNAM 01.09.76 SNAMPROGETTI SPA D15 H03 =GB 1582-965
Microbiological purification of water contaminated with mineral oil - 18159A/10
SNAM 01.09.76 SNAMPROGETTI SPA D15 H03 =GB 1582-966
Microbiological purification of water contaminated with mineral oil - 18159A/10
SNAM 27.07.77 SNAMPROGETTI SPA A96 B07 D22 =US 4243-776
Biocompatible polymers prepn. - 08021B/05
*SOPP- 00.00.79 FA SOPP W & CO GMBH D12 *DE 2925-600
Netted sausage skin hose - 03824D/04
STAD 01.06.76 STANDARD OIL CO (IND) D13 =CA 1091-079
Amelioration of taste and utility of edible porteins - 84692Y/48
*STAN/ 18.06.79 STANGE B D12 E17 (E12) *DE 2924-452
Freeze-dried meat additive compsn. - 03788D/04
STAR/ 04.06.79 STARK V D15 =BR 8003-353
Solar distn. appts. esp. for sea water - 09176C/05
STAU 23.07.73 STAUFFER CHEMICAL CO D13 =J5 5111-774
Synthetic, powdered egg yolk prepn. - 88765V/52
STAU 23.07.73 STAUFFER CHEMICAL CO D13 =J8 0050-665
Synthetic, powdered egg yolk prepn. - 88765V/52
STER 29.01.76 STERLING DRUG INC D15 =CA 1091-164
Grease and oil removal from filter bed granules - 48615Y/27
STER 25.02.76 STERLING DRUG INC B03 C02 D21 =CH -620-907
Bis-amino-pyridinium-alkylene or xylylene salts - 61184Y/35
STRI 09.04.79 SRI INTERNATIONAL D16 (D17) =US 4243-752
Cellulase prodn. by Thielavia terrestris cultivation - 75619C/43
*STRU/ 03.06.75 STRUKOV F I A35 D15 *SU -735-576
Removing polymer and surfactant from latex prodn. waste - 05296D/04
*SUGA= 01.11.77 SUGAR RES INST D17 J04 S03 *SU -734-558
Quantitative determn. of sugar in soln. - 05171D/04
*SUMO 07.05.79 SUMITOMO CHEMICAL KK D15 E14 *J5 5147-196
Treating waste water by aerobic activated sludge process - 04501D/04
*SUMO 08.05.79 SUMITOMO CHEMICAL KK A14 D22 (A13 A97) *J5 5147-512
Prodn. of hydrogel with high water absorbability - 04580D/04
*SUNP- 08.05.79 SUN POLE KK A97 D25 E17 *J5 5147-600
Detergent compsn. esp. for cleaning baths - 04635D/04
SUZU/ 24.06.75 SUZUKI Y D15 =J5 2002-059
Device for draining supernatant from sedimentation tank - 04979D/04
*SUZU/ 24.06.75 SUZUKI Y D15 *J8 0050-686
Device for draining supernatant from sedimentation tank - 04979D/04
SVFO- 26.09.74 SVENSKA FOODCO AB D14 =CH -620-576
Continuous fryer for fat-reduced potato chips - 15008X/09
*SYST- 19.06.79 SYSTEMATE BV D12 *NL 7904-779
Removal of neck from plucked, headless fowl carcasses - 05073D/04

TAKE 04.12.72 TAKEDA CHEMICAL IND KK D13 =J4 9080-275
Layer dessert prodn. - 05035D/04

TAKE

*TAKE 04.12.72 TAKEDA CHEMICAL IND KK D13 *J8 0051-534
Layer dessert prodn. - 05035D/04
TAKE 31.12.76 TAKEDA CHEMICAL IND KK B04 C03 D16 #CA 1091-175
Antibiotic T-42082 active on Gram-positive, acid resistant bacteria - 61570Y/35
*TAKE 21.06.79 TAKEDA CHEMICAL IND KK C03 D16 *NL 8003-591
Fermentative prodn. of mildiomycin antibiotic - 05082D/04
TEIJ 30.01.73 TEIJIN KK D15 J01 = J4 9101-962
Sepg. liq. e.g. waste water into water and oil - 05043D/04
*TEIJ 30.01.73 TEIJIN KK D15 J01 *J8 0051-607
Sepg. liq. e.g. waste water into water and oil - 05043D/04
TEIJ 09.03.73 TEIJIN KK D15 J01 = J4 9132-661
Sepg. a mixt. of oil and water - 05044D/04
*TEIJ 09.03.73 TEIJIN KK D15 J01 *J8 0051-608
Sepg. a mixt. of oil and water - 05044D/04
TEMC- 15.12.76 TEMCA CHEM UNION D22 = CH -620-816
Zigzag folded incontinence absorbent pad - 45961A/26
TERU- 05.03.79 TERUMO CORP D22 = NO 8003-310
Sterilisation of artificial organs - 71553C/40
THOM 28.06.79 THOMAE K GMBH B04 D16 = DE 2926-091
Cell culture on solid surfaces - 04146D/04
*THOM 28.06.79 THOMAE K GMBH B04 D16 *EP --21-257
Cell culture on solid surfaces - 04146D/04
TIEL- 19.06.79 TIELEMAN BV D12 = NL 7904-778
Cutting vent of bird suspended from conveyor - 02405D/03
TIER- 10.01.72 VEB TIERZUCHT PARET C03 D13 = RO --67-323
Fodder pellets prodn - 06765U/06
TOKU 18.03.74 TOKUYAMA SODA KK A88 D15 J01 (A14) = J5 0123-084
Soaking dialysis membrane in poly:ol - 05041D/04
*TOKU 18.03.74 TOKUYAMA SODA KK A88 D15 J01 (A14) *J8 0051-605
Soaking dialysis membrane in poly:ol - 05041D/04
TOUR/ 04.12.78 TOURNIER C D12 = FR 2452-253
Animal leg boning machine - 45331C/26
*TOUR/ 28.03.79 TOURNIER C D12 *FR 2452-252
Removing protective tissue from required muscle tissue - 04230D/04
TOWN 25.05.79 TOWNSEND ENG CO D12 = BR 8003-232
Injecting fluid esp. brine into meat and fish for curing - 69605C/40
TOWN 25.05.79 TOWNSEND ENG CO D12 = NO 8001-075
Injecting fluid esp. brine into meat and fish for curing - 69605C/40
TOWN 06.06.79 TOWNSEND ENG CO D12 = GB 2051-551
Cutting sausage links suspended from slotted hook conveyor - 88073C/49
*TREB 05.06.79 BEKAERT SA B04 C03 D13 (B07 D16) *GB 2051-548
Structure for growth of seaweed - 04294D/04
TSUB 28.10.75 KUMIAI CHEM IND KK B04 C03 D13 (D16) = US 4243-661
Multhiomycin prepn. by culture of Streptomyces 8446-CC1 - 30918Y/18

UBEI 08.07.75 UBE INDUSTRIES KK D15 = J8 0050-713
Activated charcoal purificn. of waste water contg. organic matter - 15470Y/09
*UFIS= 01.11.78 UKR FISHERY RES B04 C03 D16 *SU -734-275
Rabdovirus salmonis OF-s viral strain - 05148D/04
UGIN 26.09.73 PROD CHIM UGINE KUHLMANN D23 E17 = SU -735-165
Fatty acids prepn. from crude metallic soaps - 77583V/45
*UGLI= 05.06.78 UGLICH BUTTER CHEES D13 *SU -735-233
Cheese canning process - 05186D/04
*UMEA= 30.12.77 UKR MEAT DAIRY IND D13 *SU -735-223
Cream cooler for butter manufacture - 05182D/04
UNIC 29.06.74 UNION CARBIDE CORP D12 T06 #J8 0051-542
Machine for concertina-folding tubular sausage skins - 03869X/03
UNIL 28.01.72 UNILEVER NV D24 = J8 0050-999
Toilet detergent bars - 45298U/32
UNIL 02.07.74 UNILEVER NV D13 E13 = J8 0051-538
Flavouring agent for foodstuffs esp. margarine - 06731X/04
UNIL 18.09.74 UNILEVER NV D13 = J8 0050-664
Fatty food for frying sauce prepn - 24440X/14
UNIL 04.09.75 UNILEVER LTD D23 E17 = CA 1091-126
Recovering fatty acid from soapy soln. - 16456Y/10
UNIL 06.02.76 UNILEVER LTD C03 D13 = CA 1091-085
Detoxication of colza flour for use as animal feed - 54112Y/31
UNIL 18.06.76 LEVER BROTHERS CO D13 (D16) = US 4243-684
Cheese by membrane filtration of milk then fermenting concentrate - 90017Y/51
UNIL 04.11.76 UNILEVER LTD D13 = CA 1091-084
Cooking fat pieces which can be packaged - 33418A/19
UNIL 18.05.77 UNILEVER LTD D25 = GB 1583-081
Detergent compsn. prepn. from alkali metal and calcium carbonate(s) - 82159A/46
UNIL 18.05.77 UNILEVER LTD D25 = GB 1583-082
Detergent powder sachet for washing fabrics - 82160A/46
UNIL 22.12.77 UNILEVER NV D25 E34 = DS 2855-777
Granular bleach activators - 49431B/27
UNIL 01.02.78 LEVER BROTHERS CO D25 = US 4243-544
Spray dried detergent powder compsn. prodn. - 56302B/31

*UNIL 15.05.78 LEVER BROTHERS CO D25 E17 *US 4243-820
Prepn. of carboxy methyl:oxy-succinic acid - 05647D/04
UNIL 21.05.79 UNILEVER NV A87 D25 E19 F06 = BR 8003-149
Conc., aq. liq. fabric softeners - 86374C/49
UNIL 21.05.79 UNILEVER NV A87 D25 E19 F06 = SE 8003-768
Conc., aq. liq. fabric softeners - 86374C/49
UNIL 30.05.79 UNILEVER NV D25 = BR 8003-375
Spray dried detergent powder contg. starch - 02774D/03
UNIL 19.06.79 UNILEVER NV D23 E17 = NL 7904-781
Selective hydrogenation of unsatd. fatty acids - 02393D/03
UNIL 19.06.79 UNILEVER NV D23 E17 = NL 7904-782
Selective hydrogenation of unsatd. fatty acids - 02392D/03
UNIL 21.06.79 UNILEVER NV D25 E19 (E34) = DE 3022-767
Aq. liq. detergent compsn. with active phosphate additive s
02022D/03
UNIL 21.06.79 UNILEVER NV D25 E19 (E34) = NL 8003-472
Aq. liq. detergent compsn. with active phosphate additive s
02022D/03
UPJO 24.10.75 UPJOHN CO B01 D16 = J5 5148-085
(9)-Alpha-hydroxy-androstenedion fermentation prodn. - 33075Y/
UPJO 24.10.75 UPJOHN CO B01 D16 = J5 5148-099
(9)-Alpha-hydroxy-androstenedion fermentation prodn. - 33075Y/
UPJO 29.03.79 UPJOHN CO B04 D16 = FR 2452-516
Plasmid pUC1 isolated from Streptomyces fradiae - 73817C/42
UPJO 29.03.79 UPJOHN CO B04 D16 = FR 2452-517
Plasmid pUC2 isolated from Streptomyces fradiae - 73815C/42
UPJO 29.03.79 UPJOHN CO B04 D16 = FR 2452-518
Plasmid pUC8 isolated from Streptomyces fradiae - 73816C/42
UPJO 29.03.79 UPJOHN CO B04 D16 = FR 2452-519
Plasmid pUC9 isolated from Streptomyces fradiae - 74576C/42
*URAL= 01.11.77 URALS CHEM IND RES D25 *SU -734-254
Cleaning compsn. for solid surfaces - 05136D/04
*USDA 30.05.79 US SEC OF AGRICULTURE C03 D13 *US 4243-686
Improving the palatability of straw for animal feed - 05589D/04
*UYBR- 11.02.76 UNIV BRASOV D13 (D16) *RO --67-526
Mushroom paste prepn. from whole mushrooms or waste - D/04

VAJN/ 01.04.75 VAJNA S D15 J01 = CH -620-598
Industrial ion exchange process for effluent treatment etc. - 77548X/
*VALI- 10.07.75 VALIO MEIJERIEN KES C03 D13 *CH -620-575
Improving milk quality from clostridium-infected cows - 03771D/04
*VELT- 05.10.77 VELTEN & PULVER INC D11 *CA 1091-177
Conveying baking trays to or from storage stack - 03767D/04
VERD- 30.03.79 VERDUGT BV C01 D13 E12 (D11) = FR 2452-474
Alkali metal and calcium carboxylate salts mixt. - 73841C/42
VERE 04.06.76 VER PAPIERW SCHICKEDANZ A97 D25 E19 F06 = CH 620-820
Hydrophobic paper or textile cleaning cloths - 70780Y/40
*VETE= 21.12.78 VETERINARY PREP RES B04 C03 D16 *SU -734-279
Transmissible gastroenteritis viral strain - 05151D/04
VETT/ 28.11.69 VETTER R D11 = DS 1959-786
Crusher/processer for stale bread, acid, pulp - 38870S/23
VIDR- 25.11.75 VIDRA INTR BLANARIE B07 D23 (D21) = RO --66-046
Lanolin purificn. for pharmaceutical and cosmetic purposes - 41988Y/
VOGE/ 21.09.72 VOGELAAR M P D14 = RO --64-768
Automatic processing appts. for bulb type crops - 25316V/14
VOLK- 12.10.71 VEB VOLKSWERFT STRA D12 = DS 2238-873
Fish handling machine - 64741T/41

*WAKP 09.05.79 WAKO PURE CHEM IND KK B04 D16 J04 *J5 5148-100
Clinical analysis of amino-transferase activity - 04664D/04
WALL/ 19.05.78 WALLICZEK E G A96 D22 (A14) = US 4243-656
Biosynthetic polymer compsns. and film - 86229B/48
WELA 18.06.76 WELLA AG A96 D21 (A11) = GB 1583-086
Hair setting agent comprising soln. of chitosan salt - 02331A/02
WELL 29.03.79 WELLCOME FOUNDATION LTD B04 C03 D16 = FR 2452 288
Trypanosoma cruzi antigen glyco:protein - 77293C/44
WELL 29.03.79 WELLCOME FOUNDATION LTD B04 C03 D16 = J5 5147 226
Trypanosoma cruzi antigen glyco:protein - 77293C/44
*WESS 30.05.80 WESTFALIA SEPARATOR AG D14 T06 X25 *DS 3020-563
Butter transport system - 04032D/04
WEYE 30.03.79 WEYERHAUSER CO D22 = FR 2452-258
Diaper pad more absorbent in max. wetting area - 62052C/35
*WICK- 17.05.79 WICKHAM D & CO LTD A88 D15 J01 *GB 2051-598
Dewatering appts. for sludges - 04304D/04
WIGG 02.08.76 WIGGINS TEAPE LTD A88 D18 F09 = CH -620-577
Fibrous element e.g. cigarette filter formed from fibre suspensio
86637Y/49
*WOLF/ 00.00.78 WOLFEL P D11 *DE 2928-534
Spiced honey cake spreading machine - 03921D/04

YAMA 19.08.76 YAMANOUCHI PHARM KK A96 D21 E16 = GB 1583 211
Cold permanent waving compsn. - 16156A/09

19.08.76 YAMANOUCHI PHARMACEUTICA A96 D21 E16 =GB
1
permanent waving compsn. - 16156A/09
04.05.79 YAMAMOTO S D21 *J5 5147-213
hetic, detergent and similar compsns. for application to skin -
3D/04
05.08.76 YASHIMA KAGAKU KOG KK D12 =CA 1090-960
head and gut removal - 43782B/23

= 12.12.77 ZAPORO KOMMUNAR CAR D15 X25 *SU -735-577
strial effluents electro-flotation purificn. control - 05297D/04
31.10.74 VU ZARIZENI BRNO D15 E31 K05 M25 #RO --67-293
nium ore dressing effluents - 65647W/40
0.12.74 PWA PAPIERW WALDHOF D15 E36 F09 J04 =CH -620-590
phur oxyacid salts, other than sulphates - 35981X/20
21.05.79 ZETA-ESPACIAL SA D13 =SE 8003-572
. of gasified sweets from a sugar syrup - 64232C/37
28.03.79 ZIEGLER R D11 =FR 2452-251
od-fired heat-storing baking oven - 73811C/42
/ 28.06.79 ZUCKER F J C03 D13 *DE 2926-055
bilised animal feedstuff esp. for poultry and fish - 03839D/04

DEF
22 S03
11 S04
89 S06
90 S32
51 S46
89 D04

BDE
19 S06+
17 S34
59 T32
264 V31+
848 W42
547 D04

D
786 S23
786 D04

DJ
578 S40
255 S42
111 T09
292 U14
272 U25
104 V19
578 C38
601 D04

T

DE
808 T31
235 T31
340 T34
172 V16
431 V22
319 X15
363 C48
808 D04

DJ
020 T33
006 T49
373 T52
303 W03
646 W04
870 D04
698 D04

D
162 T35
566 T35
330 U01
795 U16
723 U25
345 V14
882 V18
378 W14
078 W46
820 X45
154 D04
710 D04

D
326 T41
873 U18
967 U30
326 Y12
547 Y49
873 D04

CD
838 T50
173 T51
934 U13
790 U15
347 U17
425 V24
438 V51
465 W37
790 W45
530 Y07
762 Y31
096 A32
149 B50
264 C07
261 C07
357 D04

U

06765-U CD
DD --94-124 U06
CS 7300-162 W34
HU T010-111 W34
RO --67-323 D04

12167-U DE
US 3716-374 U09+
CA -939-188 V02
J4 9101-572 V48
J8 0051-537 D04

15492-U BD
BE -789-940 U11
DE 2249-836 U18
NL 7213-743 U18
ZA 7206-693 U27
FR 2156-220 U30
J4 8044-492 U39
CH -540-975 U47
US 3827-937 V33
GB 1368-903 V40
CA -994-269 X33
J7 6036-360 X45
DS 2249-836 Y45
NL -162-137 B48
SU -735-177 D04

18338-U DE
BE -790-362 U13+
DE 2251-405 U19
NL 7214-082 U19
FR 2156-825 U33
J4 8049-808 U37
GB 1399-339 W27+
US 3893-955 W29+
CA 1001-553 Y01+
J8 0050-997 D04+

45298-U D
BE -794-378 U32
NL 7301-046 U33
DE 2303-169 U33
FR 2169-374 U47
J4 8084-108 V03
ZA 7300-538 V40
AT 7300-626 W27
GB 1417-183 W50
CA -987-994 X20
CH -580-159 X42
US 4046-717 Y37
J8 0050-999 D04

46625-U BD
BE -793-826 U33
NL 7301-032 V19
DE 2301-031 V20
FR 2203-826 V34
J4 9066-883 W02
GB 1395-485 W22
US 3923-600 W51
CA -987-615 X19
CH -575-997 X25
J8 0051-549 D04

46837-U DE
BE -795-095 U33+
NL 7301-591 U35
DE 2305-554 U36
FR 2171-199 U49
J4 8090-979 V06+
US 3899-448 W34+
GB 1410-784 W43+
DS 2305-554 C35+
J8 0050-998 D04+

54151-U BD
BE -797-458 U37+
NL 7305-163 U44
DE 2217-628 U45
DE 2264-394 U45
DE 2307-299 V35
DD -108-323 V48+
FR 2179-966 V03
DE 2307-251 V35
US 3865-957 W08
DD -111-803 W23
J4 9007-492 V13+
AT 7302-748 W41
DS 2264-394 W41
US 3912-804 W43
AT 7302-748 W41
DS 2264-394 W41
FR 2179-966 V03
DE 2307-251 V35
US 3865-957 W08
DD -111-803 W23
US 3940-481 X10
GB 1429-334 X13
SE 7508-323 X22+
DK 7600-467 X33
DK 7600-468 X33
FI 7601-388 X39
CA 1003-774 Y05+
AT 7500-487 Y09
CH -590-060 Y34
CH -592-141 Y48+
SU -571-240 A33
SU -578-900 A38
J5 5108-271 C40+
DS 2307-299 D04

58439-U AD
DE 2212-623 U40
BE -796-611 U40
NL 7303-570 U40
FR 2176-104 U52
DD -102-728 V10
J4 9004-704 V12
GB 1403-941 W35
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US 3956-380 X21
CH -577-551 X34
SU -511-869 Y17
CA 1008-592 Y17
DS 2212-623 B35
J8 0051-000 D04

V

04933-V D
NL 7307-530 V03
DE 2324-065 V04
DD -102-571 V10
FR 2236-726 W17
CS 7304-809 X11
AT 7303-703 X28
RO --68-311 D04

12766-V BCD
NL 7310-613 V07
BE -802-937 V07
DE 2336-811 V08
FR 2194-414 V18
J4 9055-896 V31
DD -109-027 W03
ZA 7304-701 W14
IL --42-685 X09
GB 1433-417 X18
CA -989-338 X23
CH -584-286 Y09
SU -517-265 Y18
CS 7305-334 A50
RO --64-170 C02
J8 0051-556 D04

14151-V D
J4 8022-643 V08
J8 0051-557 D04

25316-V D
DE 2346-191 V14+
FR 2200-775 V25+
NL 7304-354 V42
DD -109-317 W07+
US 3915-083 W45+
GB 1417-476 W50+
HU T010-893 X08+
CA -985-110 X13+
CS 7306-509 X21
AT 7308-075 Y05+
RO --64-768 D04+

35462-V D
J4 9026-192 V19
CA -988-806 X22
J8 0050-703 D04

43934-V AD
DE 2357-324 V24
FR 2206-930 V38
J4 9135-484 W09
US 3931-678 X04
FR 2285-118 X27+
GB 1446-559 X34
CH -590-054 Y34
GB 1484-276 Y35+
CA 1020-687 Y47
CA 1041-910 A47+
DS 2357-324 B29
US 4243-578 D04

47776-V D
J4 9001-058 V26
J8 0050-718 D04

57515-V D
J4 9007-442 V32
J8 0051-560 D04

69536-V BDE
BE -814-867 V40
NL 7406-415 V48
DE 2422-737 V48
SE 7406-319 W01
NO 7401-617 W01
DK 7402-556 W03
FR 2228-746 W09
J5 0029-788 W21
ZA 7402-793 W27
DD -114-593 W40
US 3964-970 X27
GB 1452-591 X42
HU T012-503 X50
DS 2422-737 Y44
CA 1028-265 A14
J7 8007-515 A15
SU -618-037 B23
CH -620-943 D04

70229-V D
J4 9054-582 V40
J8 0051-548 D04

77583-V DE
BE -816-424 V45
NL 7412-661 W15
DE 2445-729 W15
FR 2244-745 W26
J5 0058-010 W29
GB 1417-360 W50
AT 7407-130 Y01
US 4018-805 Y17
CA 1024-163 A05
IT 1020-848 A15
DS 2445-729 B24
J8 0012-892 C18
SU -735-165 D04

85951-V BD
DE 2425-746 V50
FR 2231-750 W12
US 3887-436 W24
J5 0155-677 X04
GB 1450-840 X40
GB 1450-839 X40
CA 1036-034 A34
CA 1060-826 B36
DS 2425-746 B41
CH -620-705 D04

88765-V D
BE -817-979 V52
NL 7409-894 W06
US 3864-500 W07+
DE 2430-247 W08
SE 7409-504 W11
J5 0058-261 W29
FR 2257-233 W44
CA 1005-688 Y09
GB 1468-900 Y13
CH -594-366 A09
AT 7406-055 A26
J5 5111-774 D04
J8 0050-665 D04

W

02620-W BD
J4 9066-893 W02
J8 0051-558 D04

04102-W DH
DE 2328-806 W03
J5 0069-281 W32
RO --70-055 D04+

08205-W AD
J4 9064-621 W05
J8 0051-639 D04

25829-W CD
US 3875-310 W15
BE -825-661 W36
DE 2506-279 W38
NL 7502-768 W39
SE 7502-117 W44
NO 7500-484 W45
DK 7500-939 W50
J5 0134-885 W51
FI 7500-524 W51
FR 2262-918 W52
DD -116-136 X05
ZA 7500-895 X44
HU T012-625 Y02
GB 1492-824 Y47
IL --46-749 A06
CS 7501-548 A13
CA 1036-412 A35
SU -643-070 B41
RO --67-354 D04

39855-W DJ
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J8 0051-615 D04

42710-W D
BE -825-123 W26
DE 2504-318 W33
NL 7501-236 W34
J5 0107-164 W42
FR 2259-542 W47
US 3930-033 X02
ZA 7500-294 X13
GB 1454-071 X44
CA 1069-374 C05+
DS 2504-318 C08
J8 0051-533 D04

43187-W AD
J4 9086-599 W26
J8 0051-543 D04

57476-W DE
DE 2505-902 W35
BE -825-575 W35
NL 7501-651 W36
J5 0123-659 W48
FR 2261-279 W49
US 3980-675 X39
GB 1496-411 A01
CA 1055-510 B24
CH -620-914 D04

65647-W DEKM
DD -114-714 W40
DE 2447-471 X16
J5 1087-700 X37+
US 3988-414 X45+
GB 1497-873 A02+
CA 1053-912 B22+
RO --67-293 D04+

66308-W ABD
J5 0053-583 W40
J8 0051-552 D04

73113-W DE
J5 0046-848 W44
J8 0050-680 D04

73526-W D
NL 7504-447 W44+
DE 2515-561 W45+
FR 2280-330 X21+
US 3964-498 X27
US 3977-414 X37
US 3977-413 X37
US 3977-412 X37
US 3977-415 X37
CH -588-825 Y29+
CA 1060-195 B35+
IT 1037-287 C08+
J8 0051-544 D04+

81536-W D
BE -831-407 W50
NL 7508-763 Y07+
FR 2316-882 Y16+
GB 1480-662 Y29+
CH -620-814 D04+

85014-W DE
BE -831-740 W52
NL 7508-887 X07
DE 2531-925 X07
SE 7508-420 X12
NO 7502-595 X13
DK 7503-386 X18
FI 7502-136 X19
J5 1037-103 X20
FR 2283-218 X24
BR 7504-780 X30
ZA 7504-801 X31
PT -A64-107 X33
US 3996-148 X51
DD -122-824 Y05
AT 7505-645 Y39
CH -597-341 A15
GB 1521-984 A34
IL --47-748 B32
IT 1040-009 C14
CA 1079-747 C27
RO --68-236 D04

X

03869-X D
BE -830-742 X03
DE 2528-472 X04
US 3934-309 X06
SE 7507-416 X09
FI 7501-905 X15
FR 2276-628 X16
BR 7504-033 X29
DK 7502-903 X31
GB 1516-412 A27
DS 2528-472 A42
CA 1043-976 B01
IT 1039-513 C13
J8 0051-542 D04+

06731-X DE
NL 7507-862 X04
DE 2529-320 X05
J5 1032-767 X18
ZA 7504-212 Y13
US 4022-920 Y20
GB 1514-910 A25
CA 1039-566 A42
DS 2529-320 B03
NL -161-350 B41
IT 1036-410 C06
J8 0051-538 D04

15008-X D
BE -833-714 X09
NL 7511-404 X16
DE 2542-260 X16
SE 7412-115 X20
NO 7503-279 X21
DK 7504-299 X26
FI 7502-608 X26
FR 2285-816 X28
DD -121-599 X41
GB 1519-049 A30
SU -586-824 A46
CH -620-576 D04

19174-X DE
DE 2537-417 X11
NL 7509-951 X11
FR 2282-419 X23
J5 1063-163 X29
US 4011-269 Y11
CH -589-577 Y34
CH -589-452 Y34
GB 1487-796 Y40
GB 1487-795 Y40
DS 2537-417 D04

19843-X DL
J5 1012-381 X11
J8 0051-635 D04

24440-X D
BE -833-575 X14
NL 7412-329 X14
DE 2541-507 X16
SE 7510-425 X19
FI 7502-597 X26
J5 1057-844 X27
FR 2285-077 X27
NL -149-687 X30
GB 1466-049 Y09
ZA 7505-895 Y19
US 4044-168 Y35
DS 2541-507 B34
CA 1071-463 C10
J8 0050-664 D04

26320-X DE
US 3945-950 X14
DE 2542-937 X16
FR 2286-655 X29
GB 1517-967 A29
DS 2542-937 B33
IT 1047-618 D01
CH -620-588 D04

26505-X DEJ
BE -835-351 X15+
DE 2549-659 X21+
NL 7512-646 X22+
SE 7512-453 X26+
NO 7503-724 X27+
FI 7503-112 X31+
DK 7504-958 X31+
FR 2290-396 X37+
BR 7507-303 X41+
ZA 7506-711 X48
DK 7603-591 X50+
J5 2058-099 Y25
GB 1496-977 A01+
AT 7508-538 A18+
HU T014-891 A23+
NO 7801-416 A28+
CH -620-659 D04+

35981-X DEFJ
BE -836-419 X20+
DE 2458-426 X26
NL 7514-212 X26+
SE 7513-875 X30+
NO 7504-150 X31+
FI 7503-477 X35+
DE 2509-626 X39
BR 7508-149 X43+
DE 2518-870 X47
DE 2559-452 X48
PT --64-579 X48+
J5 1119-390 X49+
FR 2300-055 X50+
DS 2509-626 Y01
DD -125-830 Y30+
FR 2333-550 Y37+
DS 2559-452 A16
GB 1531-250 A45+
J8 0011-881 C17+
CH -620-590 D04+

42010-X D
BE -835-655 X23
NL 7514-458 X27
DE 2549-391 X27
SE 7513-793 X31
J5 1086-148 X37
FI 7503-542 X39
DK 7505-716 X41
FR 2294-653 X44
ZA 7507-414 Y01
US 4060-645 Y49
GB 1498-120 A03
AT 7509-537 A22
CH -600-802 A28
NL -161-661 B44
CA 1067-744 C01
DS 2549-391 D04

42348-X D
DE 2551-742 X23
BE -835-693 X23
NL 7513-433 X23
SE 7512-938 X27
NO 7503-801 X28
DK 7505-185 X34
FI 7503-247 X35
J5 1082-783 X36
FR 2292-042 X39
J5 1125-407 X51
US 4002-572 Y04
DK 7705-103 A12
GB 1519-148 A30
FI 7801-061 A34
DS 2551-742 C30
J5 5148-086 D04

44030-X DJ
BE -835-888 X24+
NL 7513-763 X24+
SE 7513-173 X28+
FR 2291-788 X39+
BR 7507-801 X41
DK 7505-283 X43+
US 4021-927 Y20+
DE 2552-881 Y23+
GB 1498-206 A03+
HU T016-189 B15
CA 1069-275 C05+
CH -620-839 D04+

46431-X D
DE 2554-290 X25
BE -836-212 X25
NL 7514-080 X26
SE 7513-627 X30
DK 7505-459 X36
FR 2293-151 X42
CA 1088-366 C47
CH -620-574 D04

49095-X D
J5 1054-979 X26
J8 0051-593 D04

52092-X DE
BE -837-064 X28
NL 7515-086 X29
DE 2558-355 X31
SE 7514-641 X34
J5 1088-698 X38
DK 7505-910 X41
BR 7508-390 X43
FR 2295-705 X45
ZA 7507-129 Y04
DD -124-884 Y23
CS 7508-822 A07
HU T014-610 A15
GB 1527-999 A41
CH -611-491 B29
CA 1091-080 D04

53465-X ABDE
NL 7514-921 X28
SE 7514-312 X34
J5 1088-671 X38
FR 2295-706 X45
DE 2557-904 X46
GB 1472-679 Y18
CA 1057-570 B29
CH -620-815 D04

54722-X DE
J5 0015-361 X29
J8 0051-640 D04

58110-X CDE
DE 2600-707 X31+
NL 7600-530 X32+
J5 1098-268 X42+
US 3985-907 X43
US 3989-856 X46+
GB 1541-020 B08+
J5 5149-273 D04+

61848-X D
DE 2602-249 X33
BE -838-144 X34
NL 7501-239 X34
SE 7601-028 X42
FI 7600-166 X44
FR 2298-966 X49
CH -604-568 A41
GB 1534-333 A49
US 4242-952 D04

62153-X D
J5 1074-465 X33
J8 0050-683 D04

67056-X CDE
DS 2532-805 X36
BE -844-431 Y05
NL 7608-078 Y07
J5 2017-420 Y12
FR 2318-862 Y18
GB 1489-716 Y43
US 4075-245 A10
CA 1075-715 C18
CH -620-670 D04

69310-X DJ
J5 0056-061 X37
J8 0050-720 D04

71194-X D
J5 1088-690 X38
J8 0051-551 D04

72399-X DE
DE 2509-967 X39
FR 2302-995 Y02
GB 1529-592 A43
CH -620-892 D04

77548-X DJ
BE 840-285 X43+
NL 7603-346 X43+
SE 7603-832 X49+
J5 1122-675 X50+
FR 2306-009 Y05+
DE 2514-222 Y10
DE 2543-573 Y14
ZA 7601-940 Y35
AT 7602-321 A18+
GB 1540-481 B07+

77548-X

CA	1071-778	C10+
US	4198-295	C17+
CH	-620-598	D04+

79403-X DE

BE	-840-640	X43
NL	7602-987	X44
DE	2516-118	X44
J5	1123-838	X50
AT	7602-600	Y13
FR	2330-382	Y32
US	4043-750	Y35
GB	1523-392	A35
CH	-620-827	D04

79404-X DE

BE	-840-641	X43
NL	7602-988	X44
DE	2516-117	X44
J5	1123-837	X50
FR	2306-681	Y06
AT	7602-606	Y13
US	4046-503	Y37
GB	1522-229	A34
CH	-620-826	D04

81255-X D

BE	-842-732	X44
DE	2626-069	X52
NL	7605-939	Y01
SE	7606-474	Y04
NO	7601-989	Y05
BR	7603-722	Y06
DK	7602-571	Y09
FR	2314-052	Y13
AT	7603-771	Y13
DS	2626-069	A16
CA	1038-184	A39
US	4156-750	B24
GB	1550-385	B36
CH	-620-709	D04

96287-X ACDF

BE	-842-937	X52+
NL	7606-385	Y01+
NO	7602-030	Y05+
SE	7602-501	Y05+
DK	7601-483	Y09+
FR	2313-943	Y13+
DE	2610-931	Y39+
US	4108-990	B11+
GB	1547-258	B23+
DS	2610-931	C48+
CH	-620-573	D04+

Y

01160-Y ADF

J5	1133-475	Y01
J8	0051-555	D04

04320-Y CD

DE	2631-473	Y03
J5	1148-085	Y05
FR	2313-446	Y12
HU	T016-100	B11
GB	1550-644	B33
US	4243-685	D04

09342-Y AD

BE	-844-774	Y06+
NL	7608-429	Y08+
SE	7608-631	Y11+
DK	7603-445	Y16+
FI	7602-188	Y16+
FR	2319-434	Y19+
DE	2554-558	Y24
DE	2556-723	Y27+
BR	7604-982	Y34+
DS	2556-723	A02+
US	4069-082	A05
US	4096-289	A33
AT	7605-660	B13+
GB	1561-705	C09+
CA	1077-788	C23+
DS	2554-558	C41
CH	-620-586	D04+

11094-Y BCDE

BE	-843-953	Y07
DE	2630-837	Y10
NL	7607-730	Y11
SE	7607-321	Y15
J5	2031-077	Y16
NO	7602-449	Y16
DK	7603-155	Y21
FI	7602-039	Y21
FR	2322-146	Y22
ZA	7603-902	Y26
PT	--65-357	Y27
BR	7604-541	Y33
DD	-127-201	Y51
GB	1505-029	A12
GB	1505-028	A12
AT	7605-172	A22
DD	-131-857	A36
AT	7708-167	A40
CS	7604-886	B14
CS	7803-022	B14
CS	7706-588	B14
AT	7601-095	B35
DK	7901-463	B50
SE	7910-631	C22
CA	1077-501	C22
SE	7910-630	C25
DS	2630-837	C35
CA	1086-323	C42
CA	1089-865	C49
NL	8004-974	C50
CH	-620-917	D04

12715-Y CDEF

BE	-845-228	Y08+
DE	2536-618	Y09
DE	2536-617	Y09
NL	7608-266	Y09+
NL	7608-265	Y09+
SE	7608-459	Y13+
J5	2025-034	Y14+
J5	2025-011	Y14+
NO	7602-605	Y14+
DK	7603-363	Y20+
FR	2321-301	Y21+
FR	2321-302	Y21+
FI	7602-128	Y21+
BR	7605-307	Y34+
ZA	7604-879	Y35
US	4051-058	Y40+
US	4051-059	Y40+
DE	2616-049	Y44
AT	7606-032	A40+
AT	7606-029	A44+
CA	1050-876	B13+
CA	1050-877	B13+
DS	2536-617	B15
GB	1561-680	C09+
GB	1563-713	C13+
CH	-620-676	D04+

12819-Y ADE

BE	-847-194	Y08
DE	2645-282	Y17
J5	2047-923	Y21
FR	2327-760	Y29
GB	1510-236	A19
DS	2645-282	C01
US	4243-657	D04

15470-Y D

J5	2007-155	Y09
J8	0050-713	D04

16456-Y DE

BE	-845-864	Y10
NL	7609-870	Y12
DE	2639-596	Y12
SE	7609-787	Y15
NO	7603-012	Y16
DK	7603-984	Y21
FI	7602-533	Y21
FR	2322-919	Y23
BR	7605-867	Y35
ZA	7605-292	A20
GB	1559-794	C05
CA	1091-126	D04

22244-Y D

DE	2642-628	Y13
BR	7606-313	Y24
FR	2325-717	Y26
DD	-126-122	Y33
ZA	7605-627	Y38
US	4094-700	A32
DS	2642-628	B36
GB	1562-997	C12
CA	1079-722	C27
SU	-700-045	C28
CH	-620-708	D04

25264-Y CD

BE	-846-966	Y15
DE	2644-772	Y16
NL	7611-059	Y17
DK	7604-301	Y26
FR	2327-312	Y28+
GB	1538-526	B03
CH	-620-707	D04

27146-Y AD

BE	-847-267	Y16
DE	2646-675	Y17
J5	2054-034	Y24
FR	2327-761	Y29
GB	1541-670	B10
DS	2646-675	C11
CH	-620-115	C50
CA	1091-156	D04

27585-Y ADEF

DE	2645-301	Y16
BE	-847-073	Y16
NL	7611-171	Y17
J5	2047-823	Y21
FR	2328-702	Y30
GB	1522-858	A35
CH	-617-809	C29
CA	1090-338	C51
CH	-617-809	D04

30918-Y BCD

BE	-847-684	Y18
NL	7609-445	Y20
SE	7611-871	Y23
J5	2054-013	Y24
DE	2647-158	Y26
DK	7604-889	Y29
BR	7606-978	Y39
FR	2361-907	A20
DD	-130-626	A23
GB	1543-353	B14
IL	--50-214	B48
GB	1562-987	C12+
SU	-685-132	C18
US	4229-535	C45
US	4243-661	D04

33075-Y BD

DE	2647-895	Y19
NL	7611-711	Y19
J5	2054-093	Y24
US	4035-236	Y29
FR	2328-718	Y30
DD	-127-455	Y51
DE	2660-015	A27
GB	1530-730	A44
IL	--50-747	C09
DS	2647-895	C22
J5	5148-085	D04
J5	5148-099	D04

34501-Y AD

BE	-848-338	Y20
DE	2651-706	Y21
NL	7612-554	Y22+
NL	7612-553	Y22
DE	2651-749	Y22+
J5	2070-033	Y30
DK	7605-108	Y31
FR	2331-325	Y33+
FR	2331-324	Y33
SE	7612-617	Y40
BR	7607-596	Y43
SE	7612-617	Y50
US	4150-115	B18
AT	7608-422	C23+
CH	-617-090	C24+
GB	1568-989	C24
GB	1569-980	C26+
CA	1085-090	C38
CH	-619-138	C43
AT	7608-421	C44
CA	1091-158	D04+

38465-Y AD

DE	2652-409	Y22+
NL	7612-844	Y23+
J5	2062-315	Y27
J5	2065-503	Y28
FR	2332-321	Y34+
J5	3047-408	A23
US	4102-977	A44+
J8	0018-479	C24
GB	1571-003	C28+
GB	1571-004	C28
US	4219-535	C37+
CA	1087-152	C44+
US	4238-346	D01+
J5	5149-120	D04

39800-Y AD

BE	-848-881	Y23
NL	7613-240	Y25
DE	2654-925	Y25
SE	7613-522	Y28
J5	2076-440	Y32
FR	2333-493	Y37
PT	--65-923	A29
ZA	7607-203	A34
GB	1557-580	B50
AT	7608-939	C19
CA	1091-161	D04

41988-Y BD

DE	2649-906	Y24
SE	7613-114	Y27
FR	2333-039	Y36
CH	-597-339	A15
DS	2649-906	C25
GB	1571-619	C29
RO	--66-046	D04

48615-Y D

US	4032-443	Y27
BE	-850-678	Y30
DE	2702-944	Y32
ZA	7700-257	A04
GB	1564-978	C16
CA	1091-164	D04

54112-Y CD

BE	-850-943	Y31
DE	2704-743	Y33
NL	7701-124	Y34
SE	7701-269	Y37
NO	7700-385	Y39
FI	7700-310	Y42
DK	7700-436	Y43
FR	2340-059	Y47
GB	1575-506	C39
CA	1091-085	D04

57892-Y D

DE	2659-677	Y33
FR	2340-052	Y47
ZA	7607-514	Y50
GB	1528-860	A42
CH	-617-071	C24
SU	-735-152	D04

61184-Y BCD

BE	-851-807	Y35+
NL	7701-965	Y37+
DE	2708-331	Y37+
J5	2105-228	Y41+
NO	7700-631	Y41+
DK	7700-812	Y45+
FI	7700-593	Y46+
FR	2342-286	Y50+
ZA	7700-975	A08
PT	--66-224	A12+
SE	7702-072	A13+
GB	1533-952	A48+
US	4107-313	B08+
AT	7701-297	B35+
CA	1073-911	C14+
CH	-620-907	D04+

61570-Y BCD

J5	2083-805	Y35
CA	1091-175	D04+

64939-Y BD

BE	-852-142	Y37
DE	2710-694	Y38
NL	7702-341	Y39
SE	7702-721	Y43
NO	7700-852	Y44
FR	2343-751	A01
J5	2142-044	A02
DD	-130-047	A30
GB	1549-320	B30
CA	1068-226	C02
CH	-620-944	D04

68031-Y D

J5	2096-797	Y38
J8	0050-666	D04

68104-Y D

NL	7602-118	Y38
BE	-853-406	Y41
ZA	7702-169	A16+
PT	--66-486	A21+
AT	7702-426	A35+
DE	2716-069	A43+
SE	7704-135	A46+
NO	7701-255	A48+
DK	7701-604	A48+
BR	7703-039	A50+
FI	7701-116	A51+
FR	2386-339	B03
US	4152-082	B20
CA	1072-368	C11
GB	1571-339	C29
DS	2716-069	D03+
CH	-620-595	D04

68422-Y D

US	4047-529	Y38
BE	-857-877	A02
DE	2736-922	A09
NL	7708-877	A10
DK	7703-651	A17
BR	7705-503	A19
FR	2361-833	A20
PT	--66-907	A37
US	4127-132	A49+
ZA	7704-650	B18
CH	-618-855	C39
GB	1583-098	D04

70736-Y D

BE	-853-143	Y40
NL	7703-672	Y42
DE	2713-861	Y42
J5	2120-190	Y46
DK	7701-458	Y51
FR	2346-366	A04
GB	1528-304	A41
US	4144-127	B12
CA	1091-173	D04

70780-Y ADEF

BE	-855-362	Y40
DE	2625-176	Y50
NL	7706-017	Y51
FR	2353-265	A12
DS	2625-176	B01
AT	7703-517	C14
CH	-620-820	D04

70800-Y D

BE	-855-423	Y40
NL	7706-643	A02
DE	2726-302	A02
SE	7707-019	A04
J5	2155-857	A06
FR	2354-974	A13
ZA	7703-608	A25
CH	-611-255	B23
AT	7703-955	C05
US	4236-974	C51
CA	1091-185	D04

75874-Y DE

BE	-853-733	Y43
NL	7704-326	Y45
DE	2717-766	Y45
J5	2132-030	Y50
FR	2348-911	A06
US	4125-601	A47
DS	2717-766	B05
GB	1549-752	B32
CA	1074-815	C15
AT	7702-685	C27
J8	0049-088	D02
J5	5149-349	D04

77620-Y D

BE	-856-293	Y44
DE	2744-400	A20
US	4094-319	A32
CH	-620-823	D04

79397-Y BDE

BE	-854-358	Y45
DE	2720-510	Y48
J5	3009-328	A10
FR	2362-635	A21
US	4187-291	C07
GB	1575-217	C38
CA	1091-581	D03
CH	-620-587	D04

80613-Y AD

J5	2117-481	Y45
J8	0050-679	D04

81425-Y BD

DE	2712-072	Y46
J5	2134-085	Y51
FR	2350-395	A08
BR	7702-005	A08
US	4072-573	A08
DD	-130-487	A23
GB	1552-892	B38
SU	-719-514	C42
DS	2712-072	D04

81980-Y D

J5	2118-849	Y46
J8	0050-714	D04

82920-Y AD

BE	-854-634	Y47+
DE	2621-698	Y48
NL	7705-328	Y48+
SE	7705-632	A01+
NO	7701-696	A02+
DK	7702-122	A06+
FI	7701-542	A08+
FR	2351-060	A09+
DE	2638-910	A10
BR	7703-125	A15+
ZA	7702-834	A20
DS	2621-698	B10
AT	7703-459	B44+
GB	1583-074	D04+

84692-Y D

BE	-854-987	Y48
NL	7705-936	Y51
DE	2724-771	Y51
J5	2148-643	A04
DK	7702-392	A09
FR	2353-233	A12
GB	1575-052	C38
CA	1091-079	D04

84781-Y BD

BE	-857-211	Y48+
NL	7708-325	A07+
DE	2733-658	A07+
SE	7708-592	A10+
NO	7702-652	A11+
DK	7703-378	A14+
FI	7702-280	A16+
J5	3040-720	A21+
PT	--66-854	A35+
US	4143-135	B11
ZA	7704-528	B14
US	4182-758	C03+
US	4206-156	C24+
GB	1580-899	C50+
CA	1091-241	D04+

85029-Y DE

DE	2719-542	Y48
FR	2350-096	A08
US	4228-151	C44
GB	1583-102	D04

86592-Y BD

BE	-855-347	Y49
NL	7706-276	A01
US	4064-009	A01
DE	2725-713	A01
SE	7706-692	A04
J5	2151-173	A05
DK	7702-470	A10
FR	2354-326	A12
DD	-131-020	A27
PT	--66-627	A29
CS	7703-788	A41
US	4104-282	A47+
ZA	7703-467	B09
HU	T016-381	B20
AT	7704-023	B40
IL	--52-248	C43
GB	1583-062	D04

86637-Y ADF

BE	-857-378	Y49
DE	2733-355	A07
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90529-Y D

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D04

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A30+
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A38+
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B07
B49+
D04+

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J8 0050-903 D04
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D04

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J5 3142-411 B04
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ZA 7803-476 C13
CA 1091-157 D04+

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B22

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14454-B D
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26389-B CD
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39027-B D
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CA 1090-960 D04+

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J8 0037-923 C43
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J5 4109-085 B40
ZA 7807-140 C35
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CA 1091-081 D04

56302-B D
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NL 7904-180 C51+
GB 2048-889 C51+
DK 7901-994 D03+
SE 7904-349 D04+

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J5 4160-639 C05
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71796-B D
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DE 2921-499 B50+
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75094-B D
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AT 7904-063 C44+
DE 2922-664 C51+
NL 7904-545 D02+
GB 2050-824 D03+
NO 7901-744 D04+

84664-B D
GB 1556-398 B47
CA 1091-172 D04

86229-B AD
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GB 2021-125 B48+
US 4243-656 D04+

87855-B CDE
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GB 2021-573 B49
J5 4157-557 C04
FR 2426-680 C10
US 4243-590 D04

89604-B ADE
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GB 2022-608 B51
J5 4158-408 C05
US 4243-559 D04

91082-B BDJK
US 4177-253 B50
GB 1582-956 D04

C

01506-C D
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DE 2926-914 C06+
NL 7904-664 C07+
GB 2027-381 C08+
SE 7905-236 C10+
DK 7902-761 C12+
FR 2431-354 C18
BR 7904-105 D04+

03782-C D
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SE 7905-358 C07
DK 7802-820 C08
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05074-C D
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09176-C D
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PT --71-346 D02
BR 8003-353 D04

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GB 2026-484 C06
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GB 1583-101 D04+

12872-C D
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GB 2051-549 D04

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DE 2925-388 D04

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20214-C D
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GB 2039-460 C33
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29234-C BD
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J5 5147-227 D04

31127-C D
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GB 2051-754 D04

32518-C AD
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BR 7908-596 D01
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32835-C D
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37088-C AD
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45331-C D
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GB 2037-146 C28+
FR 2452-253 D04+

46243-C DK
BE -881-627 C27
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DS 2900-368 D04

56925-C ADF
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56933-C D
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62052-C D
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64232-C D
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GB 2045-796 C45+
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GB 2047-688 C49
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67780-C D
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71553-C D
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GB 2048-703 C51
FR 2452-308 D04

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NL 8001-303 C42+
SE 8000-739 C46+
GB 2046-609 C47+
FR 2452-304 D04+

71850-C BD
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FR 2452-474 D04

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FR 2452-305 D04+

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73964-C D
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FI 8000-816 D01+
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DE 3010-748 D04+

74576-C BD
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FR 2452-519 D04

75366-C D
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NL 8003-366 D03+
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75619-C D
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77293-C BCD
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FR 2452-704 D04

77574-C DF
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J5 5147-109 D04

78812-C CD
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78918-C DE
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79347-C D
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DK 8002-096 D04

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BR 8003-149 D04

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DK 8002-160 D03
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SE 8003-569 D04

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DK 7902-033 D04
DK 8001-687 D04+

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GB 2051-795 D04

88609-C D
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NL 7904-048 C50
GB 2050-237 D02
SE 8002-170 D04

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DE 3019-254 C50
GB 2051-078 D03
SE 8003-858 D04

88696-C D
FR 2450-061 C50+
DE 3007-800 D04+

90130-C D
WP 8002-597 C50
DK 7902-029 D04

90141-C BCD
BE -883-593 C51+
PT --71-350 D02+
GB 2050-385 D02+
EP --21-685 D04+

90156-C BCD
BE -883-686 C51
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GB 2051-798 D04+

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90357-C AD
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EP --21-052 D04

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DE 2924-150 D01
EP --21-041 D04

00362-D AD
GB 2049-553 D01
J5 5148-154 D04

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BE -883-864 D02
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NL 8003-241 D02
US 4243-802 D04

01578-D D
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01985-D D
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02022-D DE
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NL 8003-472 D04+
DE 3022-767 D04+

02101-D BD
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02117-D D
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EP --20-847 D04

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EP --21-408 D04

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NL 7904-781 D04

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BR 8003-248 D04

03679-D D
US 4242-454 D03
BR 8003-334 D04

03727-D BD
BE -884-012 D04

03730-D D
BE -884-040 D04

03745-D D
BE -885-049 D04

03755-D D
BE -885-090 D04

03767-D D
CA 1091-177 D04

03771-D CD
CH -620-575 D04

03776-D D
CH -620-661 D04

03780-D AD
CH -620-828 D04

03788-D DE
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03822-D CD
DE 2925-516 D04

03824-D D
DE 2925-600 D04+

03839-D CD
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03860-D D
DE 2926-739 D04

03861-D D
DE 2926-753 D04

03874-D D
DE 2927-141 D04

03876-D D
DE 2927-188 D04

03890-D D
DE 2927-606 D04

03903-D D
DE 2928-007 D04

03909-D CD
DE 2928-240 D04+
HU T016-867 B36

03913-D D
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03919-D D
DE 2928-525 D04

03921-D D
DE 2928-534 D04+

03937-D AD
DE 3019-539 D04

03956-D AD
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03960-D DE
DE 3023-141 D04

03982-D DF
DE 3023-776 D04
GB 2051-557 D04

03983-D ADFJ
DE 3023-788 D04+

04003-D BD
DE 3025-424 D04

04026-D D
DS 2943-742 D04

04031-D D
DS 3016-163 D04

04032-D D
DS 3020-563 D04

04067-D D
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04077-D DE
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04090-D D
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04092-D DE
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04097-D DE
EP --21-100 D04+

04117-D D
EP --21-179 D04

04123-D D
EP --21-198 D04

04146-D BD
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04153-D DE
EP --21-267 D04+

04168-D BDJ
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04169-D BD
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04183-D AD
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04197-D CDEF
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EP --21-378 D04

04199-D ADF
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04222-D DE
EP --21-433 D04
DE 2926-635 D04

04230-D D
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04231-D D
FR 2452-254 D04

04232-D CD
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04233-D D
FR 2452-256 D04

04236-D DE
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04238-D DJ
FR 2452-302 D04

04259-D ABD
FR 2452-505 D04+

04279-D DE
GB 1583-104 D04

04294-D BCD
GB 2051-548 D04+

04295-D D
GB 2051-550 D04

04304-D ADJ
GB 2051-598 D04

04306-D ADJM
GB 2051-601 D04+

04317-D D
GB 2051-656 D04

04332-D D
GB 2051-769 D04+

04341-D ACDE
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04350-D ADJ
GB 2051-842 D04

04454-D DJ
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04456-D DJ
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04458-D D
J5 5147-110 D04

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J5 5147-111 D04

04460-D DJ
J5 5147-112 D04

04461-D D
J5 5147-113 D04

04462-D D
J5 5147-114 D04

04463-D D
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04471-D D
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04495-D DJL
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04496-D D
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04498-D D
J5 5147-191 D04

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J5 5147-197 D04+

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04514-D AD
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04515-D ABD
J5 5147-218 D04+

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04519-D BDE
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04520-D DE
J5 5147-234 D04+

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J5 5147-238 D04

04524-D BDE
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04525-D BDE
J5 5147-241 D04

04540-D BD
J5 5147-298 D04

04580-D AD
J5 5147-512 D04

04632
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DE
43 D04

CD
97 D04

ADEF
67 D04

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95 D04

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48 D04

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971 D04

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152 D04

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059 D04

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688 D04
852 D04

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876 D04

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072 D04

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691 D04
069 D04

DJ
700 D04
976 D04

DJ
701 D04
584 D04

ADJ
712 D04
053 D04

DL
717 D04
154 D04

D
534 D04
275 D04

AD
554 D04
578 D04

ADJ
604 D04
482 D04

ADJ
605 D04
084 D04

DJ
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881 D04

DJ
607 D04
962 D04

DJ
608 D04
661 D04

D
610 D04
676 D04

D
614 D04
263 D04

05049-D D
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J5 0140-374 D04

05050-D D
J8 0051-618 D04
J4 9097-776 D04

05051-D DJ
J8 0051-636 D04
J5 0038-359 D04

05073-D D
NL 7904-779 D04

05081-D ADF
NL 8003-573 D04

05082-D CD
NL 8003-591 D04

05093-D DE
SU -734-185 D04+
SU -734-186 D04+
SU -734-187 D04+

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SU -734-252 D04

05136-D D
SU -734-254 D04

05138-D D
SU -734-260 D04

05139-D ABD
SU -734-261 D04

05140-D BD
SU -734-262 D04

05141-D D
SU -734-263 D04

05142-D AD
SU -734-267 D04

05143-D D
SU -734-269 D04

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SU -734-272 D04

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05147-D D
SU -734-274 D04

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SU -734-275 D04

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SU -734-277 D04

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SU -734-279 D04

05152-D BCD
SU -734-282 D04

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05173-D D
SU -734-561 D04

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05183-D D
SU -735-230 D04

05184-D D
SU -735-231 D04

05185-D D
SU -735-232 D04

05186-D D
SU -735-233 D04

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SU -735-234 D04

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SU -735-280 D04

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05323-D D
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SU -735-635 D04

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US 4242-883 D04

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05427-D D
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US 4243-525 D04
J5 5132-687 C48

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US 4243-526 D04+

05527-D DE
US 4243-543 D04

05528-D DE
US 4243-545 D04+

05529-D ADE
US 4243-546 D04

05550-D ADEM
US 4243-591 D04+

05566-D D
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05570-D CDE
US 4243-643 D04+

05579-D BD
US 4243-655 D04+

05580-D BDE
US 4243-658 D04+

05581-D DE
US 4243-659 D04

05589-D CD
US 4243-686 D04

05590-D D
US 4243-687 D04+

05591-D DE
US 4243-688 D04+

05592-D AD
US 4243-689 D04

05593-D AD
US 4243-690 D04

05594-D DE
US 4243-691 D04

05615-D D
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05616-D BDJ
US 4243-753 D04+

05623-D ADE
US 4243-763 D04

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05650-D BDE
US 4243-823 D04

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DE 3010
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=873 64741T D12

DS 2307
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DS 2549
=391 42010X D13

DS 2654
=820 42385A B05D13E19

DS 2712
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DS 2744
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DS 2803
=759 39027B D15

DS 2808
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DS 2833
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DS 2855
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DS 3020
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*961 04067D D16

EP --21
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=041 00151D B03C01D22E11
=052 00128D C03D13+P1
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*074 04092D D23E17
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=519 74576C B04D16
=524 73853C D15E32M25P3
=704 77538C B03D16S03R1

GB 1582
=956 91082B B04D16J01K08
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GB 1583
#008 35563B A96B04D22+P
=062 86592Y B02D16
=074 82920Y A88D15
=081 82159A D25
=082 82160A D25Q3
=086 02331A A96D21+P2
=098 68422Y D22P3
=101 11035C D15J01
=102 85029Y D21E13
*104 04279D D15E37
=118 80495A D16H04
=182 90529Y D11
=190 04792A D16
=211 16156A A96D21E16
=235 51927A A91C03D15
=255 00102A D21E24
=304 73096A D16
=313 67108A D17E13

GB 2051
*548 04294D B04C03D13P1
=549 12872C D13
*550 04295D D12
=551 88073C D12+P6
=557 03982D D22F07P2
*598 04304D A88D15J01
*601 04306D A35D15J04M24
*656 04317D D11
=754 31127C D13Q3
*769 04332D D15
=770 88370C D15
=771 73486C D15Q4
=795 88558C A96B04D16E12
=798 90156C B02C02D13
=800 00056D B02C02D13E13
*814 04341D A60C01D22E11
*842 04350D A88D15J01

GB 2052
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HU T016
#867 03909D C03D13

J4 7018
=154 55289T D15+P4

J4 7027
=870 52575T D15J02

J4 8001
=148 04975D A92D14

J4 9010
=881 05042D D15J01

J4 9048
=154 04993D D15L02

J4 9080
=275 05035D D13

J4 9097
=776 05050D D15

J4 9101
=962 05043D D15J01

D15J01

D15J01

D15J02

A31D14J01

A88D15J01

D15

D15J02

D15

D15

A14D16

D15

D15

A97D15J01

D14P7

D15

D15

D15P7

D15

D15

D13

D15E36

A32D22P2

D15J01
A94D15J01
D15J01
A88D15J01
D15F09
D15
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D15J01
D15
D15
D15
D15Q4
D15Q4
D15Q4
D15Q4
D15Q4
D15Q4
D15J01L02P4
D15J01L02P4
D15
D15
D15
D15
D15E36
D15E14
D15
D15H09
D21
D21
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A96D21
A96B05D22
B04D16
B04C03D16
B04D16
B05D13
B07D21E17

J5 5147

* 234	04520D	D23E15
* 238	04523D	B05D21E17
* 240	04524D	B05D21E17
* 241	04525D	B05D21E17
= 255	79319C	C02D22E13
* 298	04540D	B04D16
= 397	46243C	D15K07
* 512	04580D	A14D22
* 596	04632D	D23
* 597	04633D	A97D15
* 598	04634D	D25E19
= 599	64594C	A97D25E33
* 600	04635D	A97D25E17

J5 5148

* 055	04647D	B04D13
* 056	04648D	B04D13
* 063	04649D	D16
= 064	79347C	D13
* 072	04650D	A97D12
* 073	04651D	D13
* 083	04652D	D16
* 084	04653D	B05D16
= 085	33075Y	B01D16
= 086	42348X	D16
* 087	04654D	D16
* 088	04655D	B05D16
* 089	04656D	D16J04
* 090	04657D	B04D16
* 091	04658D	D16E24
* 092	04659D	B05D16E16
* 093	04660D	B05D16E16
* 094	04661D	B05D16E36
= 095	85628C	B02D16E13
* 096	04662D	B03D16E13
= 099	33075Y	B01D16
* 100	04664D	B04D16J04
= 154	00362D	A96D22P7+P2
* 560	04752D	D22P3
* 732	04769D	A91D15J01M11

J5 5149

* 050	04817D	D16J04R1
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* 205	04871D	C03D16P1
* 206	04872D	D21E19
= 207	83069C	D23E13
* 215	04877D	D23E15
* 218	04879D	B05D23E15
* 220	04881D	B05D23E15
* 227	04885D	B05D21
* 235	04888D	B05D21E12
* 243	04891D	A25D25E16
= 273	58110X	C03D13E13
= 280	82775C	D23E13
= 287	38129C	B02D22E13
* 297	04914D	B04C03D16
= 302	60883C	A96D21
= 349	75874Y	D21E24
* 367	04954D	A87D22E19F06
= 394	60814A	A97D11H07J07+Q7
* 395	04969D	D23
= 398	64597C	D21E19
= 400	86838C	D18E13

J8 0050

= 664	24440X	D13
= 665	88765V	D13
= 666	68031Y	D13
= 667	89056Y	C03DT3E17
* 671	04975D	A92D14
= 674	27268A	B05C03D22E17
= 679	80613Y	A35D16
= 680	73113W	D17E13
= 683	62153X	D15
* 684	04977D	D15
* 685	04978D	D15
* 686	04979D	D15
* 688	04981D	D15
* 689	04982D	D15
* 690	04983D	D15
* 691	04984D	D15P7
= 698	52575T	D15J02
* 700	04990D	D15J02
* 701	04991D	D15J02
= 703	35462V	D25
= 710	55289T	D15+P4
* 712	04992D	A97D15J01
= 713	15470Y	D15
= 714	81980Y	D15
* 717	04993D	D15L02
= 718	47776V	D15
= 720	69310X	D15J03
= 790	20586A	A94D22F07P3P7
= 903	80722A	D15L02+P4
= 997	18338U	D25E17
= 998	46837U	D21E14
= 999	45298U	D24

J8 0051

= 000	58439U	A97D25

J8 0051

= 533	42710W	D13
* 534	05035D	D13
# 537	12167U	D13E17
= 538	06731X	D13E13
# 542	03869X	D12T06+P1R2
= 543	43187W	A97D18+P1
= 544	73526W	D18P1
= 547	10617S	B05D16E16
= 548	70229V	D16
= 549	46625U	B04D16
= 551	71194X	D16
= 552	66308W	A96B04D16
= 553	49095X	D16
* 554	05036D	A14D16
= 555	01160Y	A14D16F06
= 556	12766V	B04C03D16
= 557	14151V	D17
= 558	02620W	B02D16
= 560	57515V	D17
= 601	63604S	D15J01Q7
* 604	05040D	A31D14J01
* 605	05041D	A88D15J01
* 606	05042D	D15J01
* 607	05043D	D15J01
* 608	05044D	D15J01
* 610	05046D	D14P7
* 614	05048D	D15
= 615	39855W	D15J01
* 616	05049D	D15
* 618	05050D	D15
= 619	00005A	D13E14
= 635	19843X	D15L02+P4
* 636	05051D	D15J01
= 639	08205W	A97D15
= 640	54722X	D15E19

NL 7806

= 035	01874B	D21E13
= 036	01875B	D21E19

NL 7904

= 778	02405D	D12
* 779	05073D	D12
= 781	02393D	D23E17
= 782	02392D	D23E17

NL 8003

= 406	56925C	A96D22F03
= 419	00781D	D21E24
= 472	02022D	D25E19
* 573	05081D	A96D22F07P2
= 576	02290D	D13
* 591	05082D	C03D16

NO 7901

# 744	79129B	A96B05D21

NO 8001

= 075	69605C	D12P3
= 570	02418D	D25E16
= 587	90468C	D12+P6
= 589	73486C	D15Q4

NO 8003

= 310	71553C	D22P3

RO --64

= 768	25316V	D14+P1P6

RO --65

* 096	D	B02D16

RO --66

= 046	41988Y	B07D23
= 357	79767T	C03D13
* 687	D	B04D16S03R1

RO --67

# 293	65647W	D15E31K05M25
= 323	06765U	C03D13
= 354	25829W	C03D13
* 388	D	B03D16
* 526	D	D13
* 743	D	D11T06
* 798	D	D21
* 799	D	D21

RO --68

* 064	D	B04D16
* 155	D	A96D22
* 232	D	D14
= 236	85014W	D25E16
= 311	04933V	D12+Q3

RO --70

# 055	04102W	D16H04

SE 7904

# 349	66229B	B02C03D16E13
* 393	D	D15

SE 8002

= 170	88609C	D13

SE 8003

= 095	78918C	D21E24
= 569	86617C	D13P1
= 572	64232C	D13
= 625	71611C	D22P3Q7
= 631	69592C	B05D21E19
= 768	86374C	A87D25E19F06
= 858	88643C	D16

SU -734

* 185	05093D	D23E15
= 186	05093D	D23E15
= 187	05093D	D23E15
* 252	05134D	D23
* 254	05136D	D25
* 260	05138D	D16
* 261	05139D	A97B04D16
* 262	05140D	B04D16
* 263	05141D	D16
* 267	05142D	A97D16
* 269	05143D	D16
* 271	05144D	B04D16
* 272	05145D	D13
* 273	05146D	B04D16
* 274	05147D	D15
* 275	05148D	B04C03D16
* 277	05149D	D16
* 278	05150D	D16F01
* 279	05151D	B04C03D16
* 282	05152D	B04C03D16S03R1
* 558	05171D	D17J04S03R1
* 559	05172D	D14S03R1
* 561	05173D	D17S03R1

SU -735

= 152	57892Y	D13
= 165	77583V	D23E17
= 177	15492U	B04D16
* 223	05182D	D13P1
* 230	05183D	D12
* 231	05184D	D12P4
* 232	05185D	D12
* 233	05186D	D13
* 234	05187D	D13
* 235	05188D	D13
* 277	05196D	D15J01
* 280	05199D	D22
* 290	05207D	D15J02
* 310	05220D	A88D15P4
* 439	05279D	D14P7
* 440	05280D	D14P7
* 572	05294D	D15T06R2
* 573	05295D	D15H05
* 576	05296D	A35D15
* 577	05297D	D15X25
* 590	05306D	D16E17
* 634	05323D	D18
* 635	05324D	D18

US RE30

= 472	14072B	A97D25E34

US 4242

* 761	05391D	A96D22P3
* 774	05394D	D12
= 832	71712B	D16+P1
= 852	68510B	D22P3Q3
* 883	05409D	D22
= 952	61848X	D13

US 4243

* 026	05423D	A96D22P3
* 041	05427D	D22P3
* 056	05429D	D18P1
# 065	72249B	D15J01+Q6
= 074	88023A	A94D12Q3+P7Q6
* 412	05465D	D21M26
* 521	05516D	D15
= 522	03782C	D15Q7
= 523	20214C	D15
* 525	05517D	D15E36
* 526	05518D	D15
= 536	44431B	D15J01
* 543	05527D	D25E19
= 544	56302B	D25
* 545	05528D	D25E33
* 546	05529D	A97D25E19
= 549	14454B	D25+P3
= 559	89604B	A97D25E19
= 567	27008A	A96D22L02P3
= 578	43934V	A96D21
= 590	87855B	C03D21E13
* 591	05550D	A14D15E13M14
= 602	57234C	D25E11
= 603	71796B	D13
* 632	05566D	D22
* 643	05570D	C04D13E36
* 655	05579D	B04D21
= 656	86229B	A96D22P3

US 4243
=657 12819Y A96D21E19
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*659 05581D D21E19
=661 30918Y B04C03D13
=662 26389B C03D16
=670 25540A B03C02D22E13+P3
=684 90017Y D13
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*688 05591D D13E13
*689 05592D A97D11
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*691 05594D D13E13
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=749 69285A A96B04D16J04R1
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=752 75619C D16
*753 05616D B04D16J04
*763 05623D A14D21E14
=775 37088C A96D22+P3
=776 08021B A96B07D22P3
=802 01233D A11D25
=814 38450A B05C03D21E19
*820 05647D D25E17
*823 05650D B05D13E17

WP 8100
*001 05669D D18P1